LIBRARY
SUPREME COURT, U. S.

Supreme Court, U.S.
FILED
SEP 14 1970
ROBERT SEAVER, CLERK

In the Supreme Court of the United States

OCTOBER TERM, 1970

No. 682

THE CALIFORNIA COMPANY,
A DIVISION OF CHEVRON OIL COMPANY,
Petitioner,

vs.

FEDERAL POWER COMMISSION,
Respondent.

Appendices to Petition for a Writ of Certiorari to the United States Court of Appeals for the Fifth Circuit

FRANCIS R. KIRKHAM
ROBERT H. MORRIS
225 Bush Street
San Francisco, California 94104

Of Counsel:

PILLSBURY, MADISON & SUTRO
225 Bush Street
San Francisco, California 94104

JUSTIN R. WOLF
1625 K Street, N.W.
Washington, D.C. 20006

WOLF & CASE
1625 K. Street, N.W.
Washington, D.C. 20006

WOOLEN H. WALSHE
1111 Tulane Avenue
New Orleans, La. 70112

Attorneys for The California Company, A Division of Chevron Oil Company

September 14, 1970

SORG PRINTING COMPANY OF CALIFORNIA, 346 FIRST STREET, SAN FRANCISCO 94105

Appendix A

The opinions and judgment of the Court of Appeals, the opinions and orders of the Federal Power Commission and the provisions of the pertinent statutes are printed in Appendices A through F to the Petition for a Writ of Certiorari filed herein by Continental Oil Company, et al.

INDEX TO APPENDIX B*

	Pages
A. Companion Proceedings	
1. FPC Order Instituting AR69-1 (3/20/69)	1
2. FPC Order Enlarging AR69-1 (12/15/69)	9
3. Transcript of Proceedings Convening Settlement Conferences (4/1/70)	16
B. Orders and Motions Subsequent to Decision of the Court Below	
1. FPC Order Staying AR61-2 (7/2/70)	31
2. Producer Motion to Reopen 61-2 (7/2/70)	32
3. FPC Order Instituting R-394, to vacate rate increase moratoria (7/30/70)	39
4. FPC Order Denying Rehearing of 7/2/70 Stay (8/26/70)	44
C. Commission Documents Indicative of Gas Shortage	
1. Excerpts from Staff Report on National Gas Supply and Demand (Sept., 1969)	45
2. FPC Request for Remand (May, 1970)	51
D. The Parties' Statements Indicative of the Gas Shortage	
1. Motion of Pipeline Group for Further Oral Argument (11/22/68)	56
2. INGAA (Pipeline Association) Petition to Intervene (12/2/68)	68
3. Statement of United Gas Pipeline in Support of Producer Motion for Limited Reopening	72
4. Urgent Appeal of American Gas Association (Distributor Association) (12/16/68)	74
5. Request of New York Commission for Investigation of Shortage (1/8/69)	78
6. Motion of Consolidated Natural Gas System Companies for Limited Reopening of AR61-2 (1/31/69)	81

*Italics throughout Appendix B are Petitioners, unless otherwise indicated.

Pages

E. Public Statements of Federal Power Commissioners Relating to the Gas Shortage

1. Commissioner Bagge—May 13, 1969 88
2. Commissioner O'Connor—May 16, 1969 92
3. Commissioner Brooke—May 22, 1969 95
4. Commissioner Brooke—September 9, 1969 98
5. Commissioner O'Connor—September 10, 16, 1969 and October 7, 1969 101
6. Commissioner Nassikas—October 17, 1969 102
7. Commissioner Bagge—October 30, 1969 107
8. Commissioner Nassikas—November 11, 1969 110
9. Commissioner Nassikas and other Commissioners—November 13, 1969 114
10. Commissioner Nassikas—January 30, 1970 129
11. Commissioner Bagge—February 24, 1970 131
12. Commissioner Carver—March 5, 1970 140
13. Commissioner Nassikas—March 19, 1970 141
14. Commissioner Brooke—April 23, 1970 143
15. Commissioner Carver—May 15, 1970 144
16. Commissioner Nassikas—June 3, 1970 147
17. Commissioner Nassikas—June 9-13, 1970 149
18. Commissioner Nassikas—August 10, 1970 151

F. Statements By Other Government Agencies Relating to the Gas Shortage

1. Executive Office of the President, Office of Science and Technology, Energy Policy Staff, December 4, 1968 and September 17, 1969 156
2. Public Service Commission of the State of New York, August 19, 1970 157

Appendix B

AREA RATE PROCEEDING (OFFSHORE SOUTHERN LOUISIANA, FEDERAL DOMAIN AND DISPUTED AREAS), DOCKET NO. AR69-1

ORDER INSTITUTING INVESTIGATION AND PROPOSED RULEMAKING

(Issued March 20, 1969)

By Opinions No. 546, 40 FPC 530, and 546-A *supra*, p. 301, and accompanying orders we established just and reasonable rates for sales of natural gas in Southern Louisiana, including the offshore areas. In Opinion No. 546 we noted that the record in that proceeding did not contain separate cost figures for the results of drilling in the Federal domain or for offshore generally. (p. 641). We expressly invited a petition to reconsider the far offshore rates. (p. 643).

On January 8, 1969, the New York Public Service Commission filed a request that the Commission institute an investigation into the adequacy of gas reserves held or controlled by the major producers and pipelines, and the claims of a shortage of natural gas. In explaining its reasons why it believes an investigation is necessary, the New York Commission referred to a December 16, 1968, letter sent by the American Gas Association to the Commission which it interprets as asserting that distributors and pipelines are being refused service by many producers on the ground that the prices found in our area decisions to be just and reasonable are inadequate. The New York Commission gave three reasons why such a refusal to serve, if it exists, is sufficiently serious to warrant formal investigation:

> First, such a shortage, if proven on an evidentiary record, would require a review to determine the rea-

sons therefor and the appropriate regulatory response thereto.

Second, to the extent that the actual or threatened withholding of gas was being used to coerce parties to FPC proceedings to modify their positions, it would be essential for the FPC to take corrective measures to protect the integrity of its processes.

Third, any group effort to fix the price at which natural gas shall be sold in interstate commerce, and any group refusal to sell gas to particular customers or groups of customers, would constitute "apparent violations of the Federal antitrust laws" which the Commission is obliged to call to the attention of the Attorney General under Section 20(a) of the Natural Gas Act.

The New York Commission suggested that the scope of the investigation might appropriately be limited to the offshore area of Southern Louisiana, noting that because of the importance of this area the need for reliable information with respect thereto is especially compelling. The Secretary of the Federal Power Commission issued public notice of the investigation request on January 16, 1969, Docket No. RI69-470, inviting any interested persons to submit written comments thereon.

On January 22, 1969, certain producer-respondents in the Southern Louisiana area proceeding filed a joint motion[1] seeking a limited reopening of the record in Docket No. AR61-2. Movants ask the reopening be granted in order "to receive additional evidence demonstrating the sub-

1. The movants are listed in the motion as Texaco, Inc., Gulf Oil Corporation and The British-American Oil Producing Company, Pan American Petroleum Corporation, Shell Oil Company, Union Oil Company of California and Humble Oil & Refining Company. Numerous other parties have subsequently filed similar motions or joined in the motion. Oppositions have also been filed.

stantial changes in supply-demand relationships for natural gas which have occurred since the record was closed over three years ago." Movants state that if a limited reopening is granted they would promptly tender evidence covering the following matters;

1. The unavailability of adequate gas supplies to satisfy present and reasonable anticipated future consumer demands.

2. The need for *immediate* corrective action due to the lead time required before improved producer price incentives can achieve higher levels of finding and development of new reserves [Commission's emphasis].

3. The appropriate regulatory response to the present serious gas supply problem.

4. The significance and importance of revenues from flowing gas as a source of capital funds for the substantial new investments required to reverse the dangerous current trends in supply and demand.

As to the investigation requested by the New York Public Service Commission, movants ask that that investigation, if the request is granted, be consolidated in the proposed reopening of Docket No. AR61-2.

Additionally, in responding to various requests for further oral argument in Docket No. AR61-2, certain distributor interveners suggested that the Commission obtain additional evidence as to the need of revision of the offshore price applicable to future contracts.

In Opinions No. 546 and 546-A we noted our concern with respect to the adequacy of the evidence in the record relating to cost of gas produced in the Federal domain[2] along with our desire to encourage a continued active program of exploration in the area.[3] This part led us to es-

2. Pp. 637, 638, 641.

3. P. 641.

tablish a series of price differentials between State domain and Federal domain production which is less than the amount of the State tax. Most importantly, however, we extended a clear invitation in the Opinion for the filing of a petition to reconsider the far offshore rates whenever the parties believed that sufficient evidence was at hand, or could be presented, to indicate a need for a change in price.

We observed in Opinion No. 546 that "certain input costs are higher in deep offshore waters than elsewhere" but that "Gas reserves data have not been satisfactorily correlated, however, with such costs" (p. 637). We similarly acknowledged the unsatisfactory status of available data on time lags and called on staff and interested parties "to undertake a more exhaustive inquiry * * * both nationally and for key production areas and subareas, such as the offshore Federal domain of Southern Louisiana." (p. 570). We believe that a further proceeding investigating the correlation between reserves found, including reserves not yet dedicated, and costs incurred in the offshore areas would be in the public interest. We shall therefor institute an investigation of offshore gas supply and costs associated therewith. The proceedings will encompass the offshore area described as Zones 2, 3 and 4 in the Interim Agreement between the United States and the State of Louisiana, dated October 12, 1956, as amended, excluding however the lands awarded to the State of Louisiana by Supplemental Decree of the Supreme Court of the United States, entered December 13, 1965 (382 U.S. 288).[4]

---

4. The parties will be free at the conference hereafter set to raise the issue whether such geographical demarcation should be changed. See Area Rate Proceeding (*Texas Gulf Coast Area*), 31 FPC 922; *Area Rate Proceeding (Other Southwest Area)*, 38 FPC 1135. In case of any change of demarcation line we would, of course, consider a prospective change of the moratorium fixed in Opinion No. 546 A for onshore third vintage gas.

If, as a result of this investigation and rulemaking proceeding, higher rates are established for fourth vintage gas-well gas sales from the area encompassed herein, we anticipate that we shall amend the just and reasonable ceilings to have prospective application to third vintage offshore gas-well gas rates,[5] and that such new rates will also govern refunds under contractually authorized increased rates filed for and made effective as a result of the modification of the Opinion No. 546 moratorium, but subject to the limits imposed in Opinion No. 546-A. The just and reasonable rate established by Opinions No. 546 and 546-A will, however, constitute a refund floor in connection with any increased rates filed as a result of the lifting of the moratorium on offshore third vintage production. As noted in Opinion No. 546-A, if a lower rate is established for fourth-vintage contracts than the third-vintage price, such lower area rate will not be applied to deliveries thereafter made under the third-vintage contracts.

The rapid growth in the offshore area has meant that large expenditures have been made for leases and drilling in this area in recent years. Production of much of the gas discovered, however, is in an early build-up stage. The data required for the correlation of gas reserves found in offshore Southern Louisiana with the costs associated therewith are in the possession of the lessees in the offshore area. For the purpose of determining the lag period between investment and production, and the unit costs incurred during the build-up period to full production, it would appear to be necessary to obtain hydrocarbon reserve, production, and cost data by leases. Rather than prescribing

5/ This provision is equally applicable to those contracts executed prior to October 1, 1968, which under the special relief granted by Opinion No. 546-A are treated as having been executed on or after October 1, 1968.

a procedure for reporting such data or for staff field studies, we shall provide for a conference or conferences of interested parties and the staff and after consideration of conference discussions, we shall issue further orders with respect to the matters involved in this proceeding. We are interested not only in experienced cost-finding relationships, but also in the general question of potential supply in the area.

The various pleadings filed with us assert a critical supply situation exists which requires prompt remedial action. We shall therefore expect the utmost cooperation of the parties to the end that necessary data be promptly reported and the hearings, if any, be expeditiously completed.

In order that we may have complete information respecting the Southern Louisiana area and in order to avoid cumulative evidence, we shall incorporate in this proceeding by reference the entire record in Docket No. AR61-2.

Any rule adopted as a result of this proceeding will be applicable to all future independent producer sales of natural gas from the offshore area. While we desire data from pipeline producers in the offshore area, the rate treatment accorded such production will be consistent with our treatment of such production in the Pipeline Production Area Rate Case, Docket No. RP66-24. A list of respondents including the purchasers of offshore leases, natural-gas companies having rate schedules on file for this area and pipelines operating in the area is attached. Evidentiary hearings should be held to the extent that factual controversies arise.

The Commission finds:

It is necessary and appropriate for purposes of carrying out the provisions of the Natural Gas Act, particularly

but not in limitation of the foregoing, Sections 5, 8, 10, 14, and 16 thereof, that an investigation, hearing, and rule-making proceeding be instituted to determine whether the just and reasonable area ceiling rates prescribed in Opinions No. 546 and 546-A which are applicable to sales of third vintage gas-well gas from the offshore Southern Louisiana area encompassed by this proceeding should be raised and any such increased ceiling made applicable to sales of such third vintage gas-well gas being made subject to refund pursuant to increased rate filings authorized by ordering paragraph (A) of Opinion No. 546-A, and whether fourth vintage area rate ceilings should be established applicable to sales of gas-well gas from the area encompassed herein pursuant to contracts dated at some date after the final order in this proceeding to be specified herein.

The Commission orders:

(A) An investigation and rulemaking proceeding is instituted concerning the issues specified in the above finding and a conference shall be held concerning the same as hereinafter provided. Unless otherwise ordered by the Commission, the proceedings shall encompass the offshore area described as Zones 2, 3 and 4 in the Interim Agreement between the United States and the State of Louisiana, dated October 12, 1956, as amended, excluding lands awarded to the State of Louisiana by Supplemental Decree of the Supreme Court of the United States entered December 13, 1965 (382 U.S. 288).

(B) The purchasers of offshore leases, natural-gas companies having rate schedules in the area and pipelines operating in the area as listed in Appendix A are made respondents in this proceeding.

(C) A conference will be held at the Commission offices, at 441 G Street, N.W., Washington, D.C., between respond-

ents, Interveners, and Commission staff concerning the issues and procedures to be followed. The Chief Examiner, or an Examiner designated by him, shall preside at the hearing hereby called and shall prescribe the date thereof. Upon completion of this conference and any other conferences which may be deemed necessary, a transcript thereof shall be transmitted to the Commission for further action.

(D) Any party who has intervened in Docket No. AR61-2 may become an intervener in this proceeding by filing notice thereof within 30 days of the date of issuance hereof in the manner provided by Section 1.8(a)(1) of the Commission's Rules of Practice and Procedure. Other persons may within such 30 days file petitions to intervene or notices of intervention as provided by Section 1.8 of the Rules of Practice and Procedure.

(E) In order that the issues involved herein may be properly determined, offshore lessees are hereby directed pursuant to the provisions of Sections 8, 10, and 14 of the Natural Gas Act to grant to authorized members of the staff of the Federal Power Commission, during regular business hours, free access to their property and access to and the right to inspect and examine all of their accounts, records, and memoranda including, but not limited to, the books, papers, correspondence, contracts, agreements, maps, reports of engineers, logs, and other data pertinent to the investigation herein authorized and upon staff request shall furnish copies of such material to the staff.

(F) The Secretary shall cause a copy of this order to be published in the FEDERAL REGISTER and served upon each of the respondents set out in Appendix A and upon interested State Commissions as is provided for in Section 1.19 of the Commission's Rules of Practice and Procedure.

Commissioner Carver *concurring.*

[Docket No. AR69-1, etc.]

Phillips Petroleum Co. et al.

ORDER ENLARGING INVESTIGATION AND PROPOSED RULE MAKING

December 15, 1969.

Area Rates—moratorium: Area rate proceeding (offshore southern Louisiana Federal domain and disputed areas), Docket No. AR69-1; Phillips Petroleum Co. et al., Docket No. RI69-753; Hunt Oil Co. et al., Docket No. RI70-72; Shell Oil Co., et al., Docket No. RI70-73; The California Co., Docket No. RI70-74.

On March 20, 1969, the Commission issued an order in Docket No. AR69-1 initiating an investigation and rulemaking proceeding for the purpose of determining whether the just and reasonable area ceiling rates prescribed in Opinion Nos. 546 and 546-A which are applicable to sales of third vintage gas-well gas produced from the Federal Domain and disputed area offshore Southern Louisiana should be raised. We also stated that it was our purpose to determine whether any such increased ceilings should be made applicable to sales of third vintage gas-well gas being made subject to refund pursuant to increased rate filings authorized by Opinion No. 546-A and whether fourth vintage area ceiling rates should be established applicable to sales of gaswell gas from the area encompassed in this proceeding. Pursuant to our order, conferences were held before Examiner Martin E. Rendelman on July 8, 30, and 31 and August 13 and 14, 1969,[1] at which the parties attempted to reach agreement with respect to the data to be furnished. As reported by the Examiner agreement could not be reached and he

1. During the periods between the above dates approximately 18 informal conferences also were held among the parties.

therefore referred the matter to the Commission for resolution.

The parties have filed a large number of petitions, motions and replies in the captioned dockets. Some of the petitions sought expansion of the new proceeding; others looked for relief from certain of the rate restrictions effected by the decision in Docket No. AR61-2. Because the various filings were so interrelated that any resolution thereof necessarily would affect the scope and objectives of the proceedings in Docket No. AR69-1, the dockets bearing on these issues were consolidated for the purpose of oral argument, which was held before the Commission on October 24, 1969. The Commission has given close attention to the prehearing conference record in AR69-1, the various pleadings referred to above, the answers thereto, and the statements made at the oral argument. Based on our study of the foregoing, we have concluded that the public interest will best be served if the proceeding in Docket No. AR69-1 is enlarged to include the entire geographical area of Southern Louisiana, onshore as well as offshore, and to provide for a review of the just and reasonable rates for all vintages of gas produced therefrom.

Insofar as the requests for a nationwide proceeding are concerned, we reject the suggestion at this time. With the exception of the Permian Basin, there is presently pending a proceeding for each of the major producing areas. We think that institution of second-round proceedings in these areas, whether individually or on a collective basis, should await resolution of all the pending cases. With respect to the Permian Basin, we are sympathetic with the views expressed by a number of parties that a review of Permian rates should be undertaken at the earliest possible time; we are giving this matter careful consideration.

We believe that a sufficient showing has been made, on the present record, to justify a review of the ceiling rates for first and second vintage gas produced in Southern Louisiana. But a sufficient showing has not yet been made to warrant an immediate change in the moratorium provisions of Opinion No. 546, as amended in Opinion No. 546-A. The issue of the continued effectiveness of the moratorium will remain open, however, pending further developments in this proceeding, and may be given further consideration herein.

PHASING OF HEARINGS

The expanded AR69-1 proceeding should be handled in two separate phases. Phase I will be confined to a review of the just and reasonable rates for nonassociated gas discovered and produced in Southern Louisiana and contracted on or after October 1, 1968.[2]

This phase of the proceeding should include evidence with respect to the adequacy of gas supply and adequacy of service to consumers, the demand for gas, the cause of a gas shortage, if any, the effect of price on gas supply and demand, and other relevant economic evidence, together with data as to the current, nationwide cost of finding and producing nonassociated gas. Data should also be included which are adequate to determine the current cost of finding and producing nonassociated gas in the Federal Domain.

Phase II will be confined to a review of the just and reasonable rates for first and second vintage gas in Southern Louisiana. We recognize that Phase II will involve complex issues concerning both costing and regulatory methodology. It would appear, however, that data of the character previously utilized for costing of flowing gas, when coupled

2. Including those contracts dated prior to Oct. 1, 1968, which under the special relief granted by Opinion 546-A are treated as having been executed on or after Oct. 1, 1968.

with the data adduced in Phase I of the proceeding, together with pertinent trend data, may provide a basis for the review of rates for first and second vintage gas. These matters should be explored at the prehearing conference and the necessary data obtained promptly.

Data Requirements

The parties to the prehearing conference previously held in AR69-1 were unable to reach agreement on the issue of the collection of data. We now proceed to a resolution of the disputed matters.

In view of our determination that the rates involved in this proceeding should be reviewed in phases, the following specific data will be required, in addition to the supply and demand evidence and other relevant data.

Phase I. (a) Published data used in determining the nationwide current cost of nonassociated gas, supplemented by such data to be furnished by the major respondents as were developed by questionnaire data in Docket No. AR61-2.

(b) Data necessary to determine the current cost of new nonassociated gas in the Southern Louisiana area, the data to be reported on a company-wide composite basis for the area. Producers operating both on and offshore shall report their data in such a manner as to allow the separate identification of costs incurred in the Federal Domain and disputed area. Data shall be reported by all original AR69-1 respondents. Small producers operating only in onshore Southern Louisiana may report their data but will not be required to complete the questionnaire.

(c) Producer data as to volumes of reserves in the offshore area not contracted to interstate pipelines and data on status of shut-in gas wells.

(d) Updated drilling cost data to be furnished by the producers.

(c) Supply and deliverability data to be furnished by the pipelines.

Phase II. Composite cost data of the major respondents in the Southern Louisiana area.

In the interest of expediting the proceeding we believe that data gathering should not be phased. This is not to say that the examiner, in the exercise of his judgment, may not allow the parties additional time within which to submit certain of the cost information, where warranted.

PROCEDURE

We shall order a prehearing conference herein to take place on Tuesday, January 27, 1970.

The staff is directed to serve on all of the parties at least 2 weeks prior to the prehearing conference, a draft of a questionnaire or questionnaires which it considers adequate to meet the cost and operating data requirements of this order, together with a suggested prehearing order incorporating proposed stipulations and schedules. We anticipate that out of this conference will come substantial agreement on data requests, and an appropriate schedule for hearings. We desire to have this proceeding expedited in every way possible. We direct the Examiner to rule on data request issues at the earliest possible date, to issue necessary questionnaires quickly, and to provide for their prompt completion. The Examiner should provide for the introduction of direct evidence by all parties, including interveners and staff, on issues such as adequacy of supply, deliverability, demand forecasts and so forth, indeed all evidence which does not depend on the reported cost data, at an early date, and should also provide for rebuttal thereto. The Examiner should further set target dates for the serving of direct cost evidence, rebuttal thereto and the commencement of formal hearings.

The Commission finds: It is necessary and appropriate for purposes of carrying out the provisions of the Natural Gas Act, particularly but not in limitation of the foregoing, sections 5, 8, 10, 14, and 16 thereof, that the investigation and proposed rulemaking heretofore instituted in Docket No. AR69-1 be enlarged to encompass the entire Southern Louisiana area and all vintages of gas produced therefrom, in order to determine whether the just and reasonable rates prescribed in Opinions Nos. 546 and 546-A should be modified and whether fourth vintage area rate ceilings should be established applicable to gas sales from the area made under contracts dated on or after the final order in this proceeding.

The Commission orders:

(A) The investigation and proposed rulemaking heretofore instituted in Docket No. AR69-1 is hereby enlarged to encompass that portion of the State of Louisiana lying south of the 31° parallel, and including all areas, both State and Federal, in the Gulf of Mexico off the shore of Louisiana, and to encompass all vintages of gas produced therefrom.

(B) All producers who have rate schedules on file with the Commission for gas sales in Southern Louisiana who were not previously made respondents in Docket No. AR69-1 are listed in Appendix A, and are hereby made respondents in this proceeding.

(C) A conference will be held on Tuesday, January 27, 1970, in a hearing room of the Federal Power Commission, 441 G Street NW., Washington, D.C., commencing at 10 a.m., e.s.t., between respondents, interveners, and Commission staff concerning the issues and procedures to be followed herein. The Chief Examiner or an Examiner designated by him, shall preside at the conference hereby called. The staff is hereby directed to serve on all of the

parties at least 2 weeks prior to the prehearing conference, a draft of a questionnaire or questionnaires which it considers adequate to meet the cost and operating data requirements of this order, together with a suggested prehearing order incorporating proposed stipulations and schedules.

(D) Any person desiring to intervene in this proceeding, not previously having intervened or otherwise made a party hereto, may, within 30 days of the date of issuance of this order, file a petition to intervene or notice of intervention as provided by § 1.8 of the rules of practice and procedure.

(E) The Secretary shall cause a copy of this order to be published in the FEDERAL REGISTER and served upon each of the respondents to this proceeding and upon interested State Commissions as is provided for in § 1.19 of the Commission's rules of practice and procedure.

By the Commission.

[SEAL] GORDON M. GRANT,
Secretary.

Excerpt of Transcript of April 1, 1970, Prehearing Conference in Docket No. AR 69-1.

(Transcript, Vol. 2, pp. 1063-1082)

Area Rate Proceeding
(Offshore Southern Louisiana)
Docket No. AR69-1

STATEMENT OF COUNSEL
[for Associated Gas Distributors]
WITH RESPECT TO
INITIATION OF SETTLEMENT CONFERENCES

By order dated March 12, 1970, the Presiding Examiner stated as follows with respect to AGD's [Associated Gas Distributors] Motion for Convening of Settlement Conference:

> The Presiding Examiner vigorously supports all efforts towards settlement of the issues in this proceeding but it is not clear that anything meaningful could be accomplished prior to receipt of the cost data upon which any possible settlement would necessarily be based. The Presiding Examiner will however welcome further discussion with respect to the advisability of convening such settlement conferences, and what could be accomplished thereat, at the further prehearing conference presently scheduled for April 1, 1970. The parties favoring such conferences should come prepared to demonstrate whether such settlement conferences convened prior to receipt of the aforementioned cost data could result in resolution of any of the issues.

To facilitate consideration of this important matter, AGD is circulating this statement to the Examiner and to the parties in advance of the prehearing conference. As the Examiner knows, "settlement" has been mentioned ever since these proceedings were initiated. Not only have a number of parties evinced interest in a settlement, but various members of the Commission have likewise pointed to the desirability of settlement. However, it has been made clear to us by various parties that settlement discussions can proceed only after the initiation of settlement conferences under the Commission's Rules. It is for this reason that we have requested the Examiner to convene a settlement conference. The question raised by the Examiner is whether settlement conferences should begin now or whether they must be held in abeyance for a six-month period until all of the cost data are assembled. We believe that a conference should be convened now. Negotiation of a settlement in a proceeding as complex, and of the magnitude of AR69-1, will be time-consuming. The practical consequence of waiting until December to *initiate* settlement discussion will be to foreclose any possibility of settlement within this calendar year [AGD's emphasis].

Moreover, it is our view that convening of a settlement conference prior to receipt of the cost data will be fruitful. For example, the following questions, among others, all of which are indispensable to an ultimate settlement, could be undertaken immediately:

1. Some organization of the parties for settlement discussions can be accomplished so that informal discussions can proceed with dispatch. In a multi-party proceeding such as the instant one, it is essential that a clear understanding be available as to the various interests of the group and how settlement proposals and data in support thereof can be transmitted.

2. The impact of the settlement on the parties can only be determined by reference to the producer rate schedules involved, the volumes of gas being sold under each, and the consequences to pipelines and their customers of various rate levels and settlement proposals. One of the indispensable items to computation of impact studies is, of course, the settlement price or prices that are finally agreed upon. However, the other indispensable information is the volumes of gas which would be subject to the settlement price. In fact, the acceptability of the settlement price will, to some extent, be determined by the impact on various pipelines and the consumers they supply. Such impact cannot be estimated on the basis of volume data now available.

To obtain a head start on this aspect of the settlement problem, AGD has made an extensive compilation of producer rate schedule data, and is in the process of attempting to secure an informal checking of such data by the various producers. Absent a settlement conference, however, where agreement can be reached as to the handling and checking of such information, it will not be possible to proceed with this part of the settlement problem.

3. Other important issues in any settlement discussions will be the format of any settlement proposals, the question of how settlement prices may be linked to the assurance of increased gas supply and rate-filing moratoria. Such questions will undoubtedly be difficult to negotiate. However, consideration of the various questions involved in the format of the proposal can and should be undertaken immediately.

4. Additionally, as Appendix A demonstrates, there are now available a variety of sources of cost data, particularly of the nature utilized in arriving at "new gas" costs under existing Commission precedent. To be sure, such data will

be updated and supplemented by information to be reported in these proceedings. We are not proposing that any party be committed to any settlement price or prices prior to the receipt of such additional data. This does not mean, however, that consideration of such price or prices on the basis of available data cannot proceed, subject, of course, to an analysis of the data when they are reported. With respect to flowing gas, there are data available for the years 1960 and 1962, so that the information to be reported in this proceeding, while in our view crucial to a decision of the proceeding, will in the final analysis simply update the information now available. Moreover, two of the items in the flowing gas cost computation, rate of return and allocation of exploration and development expenditures, are matters of judgment as to which the accounting data to be reported by the respondents may not necessarily be controlling.

It is our view that these and other matters can be fruitfully considered at this time at a settlement conference convened by the Presiding Examiner under the Commission's Rules. Conversely, settlement discussions cannot proceed in the absence of an order such as we have requested. Moreover, as we made plain in our Motion, and as most parties indicated in their responses, no one is suggesting that the settlement conferences should be permitted to interfere in any way with the progress of hearings herein.

Finally, in an effort to help focus discussion on this important matter, we suggest that the Examiner adopt the attached specific order convening a settlement conference,[1] which incorporates the provision suggested by the Municipal Distributors Group to insure that the proceedings will not be delayed by any such conference.

---

1. See Appendix B attached hereto.

Mr. Holtzinger: I have a few additional copies here, Mr. Examiner, and I would rest upon my statement as a statement of position, and I think it is self-explanatory.

Presiding Examiner: Is there any discussion with respect to Mr. Holtzinger's statement?

Mr. Mattingly: Your Honor, the staff would appreciate the opportunity to make a very brief statement on the subject of settlement conferences.

Presiding Examiner: All right.

Mr. Holtzinger: Mr. Examiner, one thing I should add. Appendix B which was a proposed form of order, which was drafted so that the parties could see what we had in mind – that is the order we are requesting the Examiner to issue. And it has been included as part of this statement so the parties could focus on our specific request.

Presiding Examiner: All right.

Before I get to any order, I will listen to some discussion.

Mr. Mattingly [Commission Staff Counsel]: Mr. Examiner, the matter of settlement conferences in this proceeding, as you well know, was raised initially by Mr. Cooper for the United Distribution Group. A number of the parties, including the staff, responded to his suggestions at that time.

The subject of settlement negotiations has now been formally raised by the motion of the Associated Gas Distributors Group filed on the 25th of February requesting your Honor to convene a settlement conference pursuant to Section 1.18 of the Commission's Rules of Practice and Procedure. All parties responding to this motion were in favor of such conferences with the exception of the Municipal Distributor Group which requested the inclusion of stringent conditions in any order convening settlement conferences. In your ruling of March 12th, your Honor declined

to convene a settlement conference but indicated a willingness to discuss the matter further at today's hearing.

The staff—

Presiding Examiner: I didn't decline to convene a conference. I said that I would listen to some discussion on whether or not there should be a conference, and if I could be shown that there could be anything accomplished by conferences prior to compilation of all the responses to the data questionnaires, I would do so.

Mr. Mattingly: My remarks this morning, your Honor, are directed to that issue.

I might say that the staff favors the convening of a settlement conference. We think discussions between the parties would be most helpful at this early stage of the proceedings since any agreements reached by the parties now can be expected to result in the expedition of the hearing of this cause, a goal which we consider of prime importance.

We are also influenced by the fact that there is virtually overwhelming sentiment among the parties in favor of settlement negotiations. In addition, the 5th U. S. Circuit Court of Appeals in its recent decision in the Southern Louisiana Court Review Proceedings clearly recognizes the concept of the settlement approach and suggests the possibility of implementing the settlement technique on a more widespread basis.

With respect to the substance of settlement discussions, it should be noted that most of the data essential for determining current costs on a nation-wide basis are taken from published sources, such as the Census of Mineral Industries. Unfortunately, the 1967 census well-drilling data are not yet available, nor do they appear to be likely to become available in the near future. However, pursuant

to the cost questionnaires approved by your Honor earlier in this proceeding, well drilling costs through year 1968 are to be reported by the respondents herein on or before April 20th, or only about three weeks from now.

Certainly these data as well as the remainder of the cost data to be reported in this proceeding can and should be considered by the parties as soon as it becomes available without waiting for such data to be formally placed in evidence.

AGA reserves and production data for 1969 are expected to become available in the near future, perhaps in a matter of days.

Other necessary published data are available as well.

Therefore, it would seem that the parties are in a position to initiate discussions relative to current gas costs, subject, of course, to the receipt of additional reported cost data at a later date.

With respect to flowing gas costs, it appears that productive negotiations as to cost and price would have to await the filing of test year 1969 cost data pursuant to the questionnaires heretofore approved.

There would not seem to be any reason, however, to exclude even preliminary discussions of the problems and issues relating to the pricing of first vintage gas, and we do not believe that the settlement conference, if one is to be ordered, should be conditioned to prevent such discussions.

However, we are in agreement with the Municipal Distributor Group that settlement discussions cannot be allowed to delay the expedited progress of this hearing. I should observe, however, that I believe all parties are aware of this problem, and in its motion for a settlement conference AGD itself pointed out that such conferences were being requested with the understanding that they would not be allowed to cause delay.

Your Honor, we think a settlement conference as proposed by AGD will be beneficial if it does not result in the disposition of this case by means of settlement. In their discussions related to settlement, the parties may well be able to reach agreements which will substantially expedite the progress of the trial of this proceeding. For example, even if agreement cannot be reached as to ultimate price, or ultimate price levels, the parties may nevertheless be able to agree or stipulate as to essential factual matters or cost levels or individual cost components.

In other words, the settlement conference may be thought of not only as a procedure for disposition of the case as a whole, but for settling, if necessary, individual issues, thereby serving to reduce the number of issues which must be resolved on an adversary basis. This procedure is in fact similar to the staff's original suggestion for a standing committee organized to serve as a point of contact and coordination between the parties in this proceeding.

We believe that meetings between the parties taking place pursuant to a ruling of the Examiner may hold prospects for significantly and perhaps substantially expediting this proceeding.

So long as there is no delay involved, we believe that settlement discussions can do no harm and there is hope on our part that they will be productive. Therefore, your Honor, we urge you to convene a settlement conference in this proceeding as requested.

In order to give the parties the opportunity and freedom to discuss all relative issues, we urge that the scope of the conference not be circumscribed by unnecessary conditions which can only work to vitiate the prospects for real accomplishment.

At the same time, it must be clear that settlement negotiations must not delay this proceeding, nor can they be

allowed to affect the responsibility of the producer respondents to report the necessary costs and related data according to the schedules heretofore approved.

That concludes our statement.

Mr. Shibley: Your Honor, my name is Raymond Shibley. Along with Mr. Flood I represent the Pipeline Purchaser Group.

While we have supported the concept of providing for at least an opportunity toward settlement in the past, I must say that your Honor's establishment of a procedure whereby the parties could indicate the purposes to be served I think has been a useful one.

Mr. Holtzinger's statement, which we had an opportunity to review yesterday, together with staff counsel's comments this morning, I think, demonstrate that there are pertinent matters which can be taken up in a settlement conference if one were ordered by your Honor pursuant to the rule. And I think that it should allay anybody's fears that we would simply be wasting time. There are things which have been listed which can be accomplished, and I think if your Honor would provide such a ruling it would be in the common good.

Presiding Examiner: Well, I am not going to issue any formal order setting forth any guideline as to what is to be accomplished in the settlement conference. I will order the conference, but for whatever good can be accomplished, why, let it be.

I don't think there is any necessity for me to issue any formal order with any restrictions or indicating what should be accomplished.

And there being no objection voiced, is the date of April 9th agreeable with the parties?

Mr. Nail: Mr. Examiner, my name is Nail. I represent Amerada Hess Corporation. The AGD's statement suggests the date of April 9th. Unfortunately, this presents a severe

conflict for me, and I have the responsibility to my company of handling these matters, at least legal responsibility.

I would like to suggest some other date that might be agreeable to the parties. April 13th or 14th would be agreeable with me.

Presiding Examiner: Is April 13th agreeable?

All right, then. Pursuant to Rule 1.18 of the —

Mr. Morrow: Mr. Examiner, I thought I heard you say there being no objection to the settlement conference at this time. I would like to make it clear on the record that the Municipal Distributor Group still stands on the answer that we made to the proposal for this settlement conference; that is, that there are certain definite restrictions with which we would — or conditions upon which we would be willing to discuss certain items in such a settlement. We do not propose to discuss prices until we have cost data available.

Presiding Examiner: I don't think I would have any jurisdiction to tell you how to conduct yourselves at a settlement conference or to what extent you wish to participate.

Mr. Morrow: And there is one other —

Presiding Examiner: So that this is up to you.

Mr. Morrow: Yes, sir.

All right. There is one —other matter, Mr. Examiner, and that is that I would request that the Examiner state in his order ordering this conference that it is to be without any possibility of a delay in the trial proceedings.

Presiding Examiner: All right.

Mr. Nail: Mr. Examiner, it has been pointed out to me that the 13th is a Monday. The convenience of the parties would probably be better served if the date were the 14th.

Presiding Examiner: Thank you.

Mr. Johnson: Your Honor, is there anything wrong with the 10th, the previous week? We think this ought to take place as soon as possible.

Does anybody have any objection to the 10th?

Presiding Examiner: You were going to say, Mr. Simons?

Mr. Simons: Yes, Mr. Examiner. I did want to comment on the request for a settlement conference.

We share certain of the views of the Municipal Group. We don't object to a conference being held if anyone wants it, but we share the same problems that the Examiner had in indicating that the proponents of the conference ought to indicate what would be accomplished.

I have read Mr. Holtzinger's pleading very carefully, and I think he has been very ingenious in making it seem like there might be four things to be discussed, but when you examine those four they really don't amount to very much. One is the parties might get the groups together. You hardly need a conference for that. And the second one is that we might find out what is being sold under each rate schedule. Again you don't need a conference for that.

I am also puzzled by the reason, which has never been explained, why we need the Examiner to order a conference.

I have participated in hundreds of cases that have gone to settlement, and normally the settlement is convened by staff counsel. I just don't understand why we need the Examiner to direct a conference. I assume parties are free anytime they want to confer. And I am puzzled by what difference this is supposed to have.

With respect to an order, if you do issue an order on a settlement conference, I would think all of this preliminary material, the first paragraph of the AGD proposed order would be better left out. I think that the findings that are made there are unwise. And I would also hope that —

Presiding Examiner: As I just stated, Mr. Simons, I am not issuing any formal order prescribing the limits of what is to happen at the settlement conference.

Mr. Simons: But we have no problem with the settlement conference proceedings so long as it does not delay these proceedings and so long as there is no requirement that we agree to things when we don't have the data to agree to them.

Presiding Examiner: All right.

Mr. Cooper: Mr. Examiner, speaking on behalf of the United Distribution Companies Group—my name is Cooper. I would like the record to show that we very emphatically support the request of the AGD group for a formal conference. We believe that many things can be accomplished in such a conference. There is a great deal of published data and other materials available to the parties here. Additional data will be coming in routinely. In the way in which the staff has presented the matter there is available to the parties almost all of the materials required for the determination of gas prices. And so we very earnestly support the conference for whatever the parties can agree upon, without—we don't think there should be any limitation on the areas the parties can discuss, and we think the order should be unlimited.

Our position on that is based in very large measure upon the points that we have been making throughout this proceeding to date, and that is our belief that this case must be resolved at the earliest possible moment. And anything that can be settled, and as promptly as it can be settled, is very much, in our opinion, in the public interest.

I might say that the evidence submitted by the UDC Group this morning represents a compilation of statistical data showing an inability on the part of the UDC Group to purchase supplies of gas needed for the year 1970, the year 1971 and thereafter, in growing quantities. The analyses of the situations of individual companies presented in the

record this morning shows the situation of those companies and their inability to purchase gas and the immediacy of the shortage problem. So we most earnestly support the motion that the Examiner call a conference.

Mr. Johnson: Mr. Examiner, I don't want to belabor this. I think your Honor has already indicated you are going to call a conference. I would just like to add that our voice is in support of calling the conference, and suggest to your Honor that with all due respect to Mr. Nail, that the 9th did represent a rather broad consensus of an acceptable date, and I would urge your Honor to adopt that date.

Mr. Harkaway: Your Honor, might I suggest we go off the record and discuss the date, if your Honor is going to rule in favor.

Presiding Examiner: All right. Let's go off the record and agree on the date.

Mr. Goldberg: Before we do that, as I understand it, Mr. Examiner, at this conference you are not going to preside. Is that correct?

Presiding Examiner: No. I will convene the conference and then I will leave you to your—

Mr. Goldberg: It seems to me, reading the Commission's rules of practice and procedure with respect to conferences, and particularly those to be convened by order of an Examiner, that at such conferences it is contemplated that the Examiner is to preside. And he calls them for the purpose of dealing with certain matters.

And this is not the kind of a conference which I understand we are going to have. The kind of conference we are going to have is more in the nature of the informal settlement conferences, if I may call it that, which have been held from time to time in connection with pipeline rate increase filings. And I think that Mr. Simons has a point, that

if you are not going to preside at this conference and it isn't the kind of a conference that the rules of practice refer of, then the only kind of conference we can have is an informal one that the staff can call and invite the parties to attend.

And I think that if we are going to have a conference of the type that the rules contemplate, the rules also contemplate that there be specified what is going to be discussed at the conference so that the parties may come prepared to discuss it. The rules are very explicit about that.

Mr. Johnson: Your Honor, I respectfully disagree with Mr. Goldberg. I think the rules do provide that the Examiner can call a conference. They provide that the conference may proceed in exactly the way that your Honor has indicated. The precedent has been established in both the Southern Louisiana and Hugoton Cases for this type of conference. And I don't think there is any impediment in the rules or elsewhere that your Honor could not proceed in exactly the way that has been proposed.

Presiding Examiner: I don't think it requires all this discussion. For whatever advantages are to be gained thereby, I will convene a settlement conference.

Now, we will go off the record for the moment to determine what date we will have it.

(Discussion off the record)

Presiding Examiner: *There will be a conference convened at the Federal Power Commission at 10:00 o'clock on April 10th for the purposes of discussing settlement*, with the understanding that at no time will there be any extensions of time granted by reason of the fact that the settlement conferences have delayed preparation of the case of any of the parties.

The place of the meeting will be announced by staff.

Is there any further business we have this morning?

Mr. Harkaway: Your Honor, as I understand your earlier rulings at the earlier conferences we had, work papers will be made available in Washington for any of the exhibits and testimony submitted today. Is that correct?

Presiding Examiner: That's correct.

Mr. Harkaway: Thank you.

Presiding Examiner: Is there anything further we have this morning?

Oh, one other thing. Let's go off the record a minute.

(Discussion off the record)

Presiding Examiner: All right. This prehearing conference is concluded. We will convene again on May 1st.

(Whereupon, at 11:33 o'clock a.m., the prehearing conference was concluded, the hearing to convene on Friday, May 1, 1970.)

United States of America
Federal Power Commission

Before Commissioners: John N. Nassikas, Chairman
Lawrence J. O'Connor, Jr.,
Carl E. Bagge,
John A. Carver, Jr., and
Albert B. Brooke, Jr.

Southern Louisiana Area Rate Proceedings } Docket Nos. AR61-2, *et al.*

ORDER CONTINUING STAY
(Issued July 2, 1970)

On June 30, 1970, the United States Court of Appeals for the Fifth Circuit, upon denying motions to stay issuance of the mandate pending possible petitions for writs of certiorari to the Supreme Court of the United States in Austral Oil Co., *et al.*, Nos. 27492, *et al.* (herein "Austral") directed the Clerk to withhold issuance of the mandate for ten (10) days to permit the parties to seek a stay from a Justice. We have determined to stay our rate orders in Opinion No. 546, as amended, upon the issuance of the Court's mandate, and until further order of this Commission.

The Commission orders:

Any rate reductions, refunds, or other obligations required to be made in Opinion No. 546, as amended, are hereby stayed until further order of this Commission. This stay will become effective when a judicial stay is dissolved in Austral.

By the Commission.

(SEAL)

GORDON M. GRANT,
Secretary.

United States of America
Federal Power Commission

Area Rate Proceeding, *et al.* (Southern Louisiana Area)	Docket Nos. AR61-2, *et al.*
Area Rate Proceeding (Southern Louisiana Area)	Docket No. AR69-1

MOTION OF INDICATED PRODUCER RESPONDENTS FOR CONTINUATION OF STAY AND FOR REOPENING AND CONSOLIDATION OF AREA RATE PROCEEDINGS

Undersigned producer respondents respectfully move the Federal Power Commission to enter its order:

1. Reopening the proceedings in Docket Nos. AR61-2, *et al.* and consolidating such proceedings with the proceedings in Docket No. AR69-1.

2. Declaring that upon such reopening and consolidation it will reconsider rate levels and refunds imposed in Opinion Nos. 546 and 546-A in light of additional evidence on the current shortage of natural gas supplies and other relevant factors.

3. Staying the rate reductions imposed by Opinion Nos. 546 and 546-A pending the completion of the procedures described below.

In support of such motion respondents show as follows:

I.

The U.S. Court of Appeals for the Fifth Circuit issued its decision in the *Southern Louisiana Area Rate Cases*, No. 27492, *et al.*, on March 19, 1970, in which it affirmed with "serious misgivings" Opinions Nos. 546 and 546-A. The Court noted:

". . . The Commission has itself recognized the possibility that its prior orders were inadequate and has set new proceedings that will consider precisely the questions troubling us and may well modify the entire scheme here reviewed. If there is a need to do so, the Commission may, and has in part, set aside the present order pending further determination. . . ." (Slip Op. pp. 56-57)

"At the same time, we emphasize that our affirmance should not be taken in any manner as a judgment that the supply problem is not serious enough to require immediate modification of the order herein sustained. . . ." (Slip Op. p. 59)

". . . In fact, the existence of the new proceedings, which as we understand them will take into account many of the issues whose absence has concerned us here, has been one of the factors we have considered in deciding to affirm the Commission's decisions." (Slip Op. p. 70)

In response to petitions for rehearing the Court on June 16, 1970, stated:

". . . Under section 19(b) of the Natural Gas Act, this Court has the broad remedial powers that inhere in a court of equity, and pursuant to our equitable powers we make it part of the remedy in this case that the authority of the Commission to reopen any part of its orders, including those affecting revenues from gas already delivered, is left intact. The Commission can make retrospective as well as prospective adjustments in this case if it finds that it is in the public interest to do so." (Slip Op. p. 2)

The proper course of action for implementing the Court's directives is an immediate reopening of the proceedings in Docket Nos. AR61-2, *et al.* and consolidation of such proceedings with the proceedings in Docket No. AR69-1. This

will provide the most expeditious means for determining the modifications in the Opinion Nos. 546 and 546-A rate levels contemplated by the Court in light of new evidence of the current supply shortage. Such evidence has been introduced in the proceedings in Docket No. AR69-1 and will be cross-examined commencing July 14, 1970. Additionally, the entire record in Docket Nos. AR61-2, *et al.*, has been incorporated by reference in Docket No. AR69-1.

The Commission should declare that in such reopened and consolidated proceedings it will provide all parties with an opportunity to show the extent to which the public interest requires the rate levels and refunds prescribed by Opinion Nos. 546 and 546-A be modified in light of the additional evidence adduced therein. The Court's decision on rehearing makes clear that the "appropriate place for originally considering what parts of the order must be reopened in light of new evidence is before the Commission." (Slip Op. p. 2) The structure of the Court's affirmance allows the Commission "great flexibility" but at the same time recognizes the attendant responsibility and duty of the Commission to remedy the situation by modifying its prior orders in Docket Nos. AR61-2, *et al.*

II.

The issuance by the Commission of a stay of the rate reductions imposed by Opinion Nos. 546 and 546-A pending final Commission decision as to the appropriate modifications of such orders is essential to preserve the status quo. If the rate reductions and refunds imposed by Opinion Nos. 546 and 546-A become effective prior to final Commission decision in the reopened proceedings, the additional revenues critically needed to fund the expanded exploratory programs so urgently required will be lost.

The entry of the Commission's stay order as herein sought would avoid the risk of irreparable injury. Thus, a Commission stay order is essential for the purposes of (a) assuring that the Opinion 546 rates are not made effective by reason of an inadvertent "gap" between the jurisdiction of the Courts and the Commission, and (b) indicating to the parties and reviewing bodies this Commission's intention to reconsider the Opinion 546 rate levels.

III.

The critical shortage of gas supplies currently facing consumers demands that the interminable delays and uncertainties plaguing the natural gas industry be eliminated at the earliest possible date. Unless the Commission promptly initiates the remedial measures urged herein, further appellate proceedings are inevitable. If such relief is promptly accorded, however, it could moot or render premature further appeals in this case.

Wherefore, for the reasons set forth above, respondents respectfully urge the Commission promptly grant the relief herein requested.

Respectfully submitted,

TEXACO INC.

J. Donald Annett
Robert E. Newey
Kirk W. Weinert
P. O. Box 52332
Houston, Texas 77052

By /s/ J. DONALD ANNETT
Attorney for Texaco Inc.

AND ON BEHALF OF:

AMERADA HESS CORPORATION
Joseph W. Morris
Edwin S. Nail
P. O. Box 2040
Tulsa, Oklahoma 74101

ATLANTIC RICHFIELD COMPANY
Edward J. Kremer
P. O. Box 2819
Dallas, Texas 75221
Charles E. McGee,
McGee & Ketchan
1145 19th Street, N.W.
Washington, D.C. 20036

AUSTRAL OIL COMPANY INCORPORATED
c/o J. Evans Attwell
Vinson, Elkins, Searls & Connally
3100 First City National Bank Building
Houston, Texas 77002

THE CALIFORNIA COMPANY
Woollen H. Walshe
1111 Tulane Avenue
New Orleans, Louisiana 70112

CITIES SERVICE COMPANY
C. C. Cammack
Cities Service Oil Company
Oil Center Building
Tulsa, Oklahoma 70102
R. J. Leithead
Cities Service Oil Company
Cities Service Building
Bartlesville, Oklahoma 74003

CITIES SERVICE OIL COMPANY
C. C. Cammack
Cities Service Oil Company
Oil Center Building
Tulsa, Oklahoma 74102

CITIES SERVICE OIL COMPANY
R. J. Leithead
Cities Service Oil Company
Cities Service Building
Bartlesville, Oklahoma 74003

CONTINENTAL OIL COMPANY
Thomas H. Burton, Jr.
P. O. Box 2197
Houston, Texas 77001

FOREST OIL CORPORATION
Richard F. Generelly
Shannon & Morley
1700 K Street, N.W.
Washington, D.C. 20006

GENERAL AMERICAN OIL COMPANY OF TEXAS
Cecil E. Munn
Cantey, Hanger, Gooch, Cravens & Munn
First Nat'l. Bank Building
Fort Worth, Texas 76102

GETTY OIL COMPANY
Clyde E. Willbern
P. O. Box 1404
Houston, Texas 77001

GULF OIL CORPORATION
THE BRITISH AMERICAN OIL PRODUCING COMPANY
Warren M. Sparks
B. James McGraw
P. O. Box 1589
Tulsa, Oklahoma 74102

HUMBLE OIL & REFINING COMPANY
Martin N. Erck
Kirby Ellis
Robert L. Norris
John R. Rebman
P. O. Box 2180
Houston, Texas 77001

HUNT OIL COMPANY
HASSIE HUNT TRUST
H. L. HUNT
WILLIAM HERBERT HUNT
TRUST ESTATE
CAROLINE HUNT SANDS
W. H. HUNT
LYDA HUNT—
HERBERT TRUSTS
LYDA HUNT—LAMAR TRUSTS
LYDA HUNT—BUNKER TRUSTS
LYDA HUNT—
CAROLINE TRUSTS
LYDA HUNT—
MARGARET TRUSTS
CLAUDE M. LANGTON,
TRUSTEE
SECURE TRUSTS
LAMAR HUNT
PLACID OIL COMPANY
Robert W. Henderson
1401 Elm Street
Dallas, Texas 75202
Paul W. Hicks
2500 First National Bank Bldg.
Dallas, Texas 75202

KERR-McGEE CORPORATION
Willard P. Scott
Derrill Cody
Kerr-McGee Building
Oklahoma City, Oklahoma 73102

MARATHON OIL COMPANY
Joseph F. Diver
Jack Fariss
Morton Taylor
539 South Main Street
Findlay, Ohio 45840

MIDWEST OIL COMPANY
James E. Bye
Holme, Roberts & Owen
1700 Broadway
Denver, Colorado 80202

MOBIL OIL CORPORATION
Tom P. Hamill
Robert D. Haworth
P. O. Box 1774
Houston, Texas 77001

MOBIL OIL CORPORATION
Carroll L. Gilliam
Philip R. Ehrenkranz
Grove, Jaskiewicz and Gilliam
1730 M Street, N.W.
Washington, D.C. 20036

PAN AMERICAN PETROLEUM
CORPORATION
J. P. Hammond
T. C. McCorkle
P. O. Box 591
Tulsa, Oklahoma 74102
Carroll L. Gilliam
Grove, Jaskiewicz and Gilliam
1730 M Street, N.W.
Washington, D.C. 20036

PHILLIPS PETROLEUM
COMPANY
Kenneth Heady
Frank Phillips Building
Bartlesville, Oklahoma 74003

SAMEDAN OIL CORPORATION
James E. Thompson
Suite 302, Lincoln Center
Ardmore, Oklahoma 73401
Philip R. Ehrenekranz
Grove, Jaskiewicz and Gilliam
1730 M Street, N.W.
Washington, D.C. 20036

SHELL OIL COMPANY
Oliver L. Stone
Thomas G. Johnson
50 West 50th Street
New York, New York 10020

SOHIO PETROLEUM COMPANY
ST. HELENS PETROLEUM
CORPORATION
Richard F. Remmers
970 1st Nat'l. Annex
Oklahoma City, Oklahoma 73102

SUN OIL COMPANY
Stanley M. Morley
Louis Flax
Shannon and Morley
1700 K Street, N.W.
Washington, D.C. 20006

THE SUPERIOR OIL COMPANY
Murray Christian
Herbert W. Varner
P. O. Box 1521
Houston, Texas 77001

TENNECO OIL COMPANY
John E. Watson
P. O. Box 2511
Houston, Texas 77001

TRANSOCEAN OIL, INC.
J. Evans Attwell
Vinson, Elkins, Searls & Connally
2100 First City National Bank Building
Houston, Texas 77002

UNION OIL COMPANY OF CALIFORNIA
Douglas C. Gregg
George C. Bond
Union Oil Center
Los Angeles, California 90017

John C. Snodgrass
Vinson, Elkins, Searls & Connally
2100 First City National Bank Building
Houston, Texas 77002

United States of America
Federal Power Commission
(18 CFR 154.105(f), (g))

Termination of Moratorium Provisions in Southern Louisiana } Docket No. R-394

NOTICE OF PROPOSED RULEMAKING
(July 30, 1970)

Notice is hereby given pursuant to 5 U.S.C. 553, and Sections 4, 5, 7 and 16 of the Natural Gas Act that the Commission proposes to terminate the moratorium provided in paragraphs (f) and (g) of Section 154.105 of the Commission's regulations under the Natural Gas Act (18 CFR 154.105 (f) and (g)) and Ordering Paragraph (B) of Opinion No. 546-A (41 FPC 301 at 340).

By decision in Opinion No. 546 (40 FPC 530), issued on September 25, 1968, the Commission imposed in Section 154.105(f) of the Regulations a moratorium prohibiting filing for rates above the ceiling rates therein established in Section 154.105(a), (b), (c) and (d) of the Regulations. This moratorium was to continue until changed by the Commission. Thereafter, in Opinion No. 546-A (41 FPC 301) issued on March 20, 1969, the Commission modified the moratorium by the addition of Section 154.105(g) of the Regulations which permits the filing of contractually authorized increases up to a base area rate of 20 cents per Mcf for Federal domain gas-well gas sold pursuant to contracts dated on or after October 1, 1968. The Commission also provided in Ordering Paragraph (B) of Opinion No. 546-A (41 FPC 301 at 340) that the moratorium on increased rate filings for gas produced within the taxing

jurisdiction of Louisiana under contracts similarly dated would expire on January 1, 1974.[1]

In its order of December 15, 1969, in Docket No. AR69-1, the Commission denied a motion to lift the moratorium but stated that the issue of the continued effectiveness of the moratorium would remain open pending further developments in that proceeding.

Data now available to the Commission reveals that since the issuance of Opinion Nos. 546 and 546-A, circumstances have changed. There are positive indications of a worsening supply situation with new findings of gas falling below production in two successive years. There are also indications that there has been a sharp drop in the level of gas exploration during 1968 and 1969 which has an adverse impact on future gas supplies. There are indications of cost increases which have affected the amount of funds devoted to the industry's exploratory effort. (See Notices of Investigation, Proposed Rulemaking, etc. in Docket Nos. R-389 and 389-A.) In these circumstances, it may be that justification now exists for the modification of the moratoria previously imposed by the Commission. We find it appropriate to receive written comments on the proposal to lift the moratoria.

In order to encourage increased exploration and development efforts for natural gas in the Southern Louisiana area and the dedication of greater volumes of gas from that area to the interstate market, we believe subject to the comments herein that the moratorium established in Opinion No. 546, as modified in Opinion No. 546-A, should be dissolved thereby permitting the filing by producers for contractually authorized rate increases which may be

1. See *Austral Oil Co. v. F.P.C.*, ... F. 2d ..... (5th Circuit 1970, slip Opinion dated March 19, 1970, supplemental Opinion dated June 16, 1970, No. 27492, *et al.*)

subject to refund under Section 4(e) of the Natural Gas Act. (15 U.S.C. 717c(e)).

If an order is issued adopting the termination of the moratorium proposed in this rulemaking, we also propose to issue concurrently therewith an order prescribing the procedures which will be utilized as a result of the lifting of the moratorium. Those interested persons who make written submissions with respect to the proposed rulemaking may also submit therein data, views, comments and suggestions concerning our proposed action.

The order would provide that 45 days after the issuance of such order rates as hereinafter established in Docket No. AR69-1 or those previously established in Opinion Nos. 546 and 546-A, whichever is higher, would constitute a floor for refunds for all vintages of gas sold subsequent thereto except as hereinafter provided. This floor would apply to those sales of natural gas which as a result of stay orders are presently being made at rates above those established in Opinion No. 546 as well as to those sales which may hereafter be made pursuant to a filing for rate increase following the date of this order. (Including increased rate filings made prior to imposition of the moratorium, but not permitted to become effective.) Provided, however, that the floor on refunds for new gas sales under contracts dated after June 17, 1970, may be established in Docket No. R-389A, "Initial Rates for Future Sales of Natural Gas for All Areas", in Docket No. AR69-1, or in Opinion Nos. 546 and 546-A, whichever is higher.

The order would also provide that any increased rate filings made pursuant to the lifting of the moratorium would become effective 45 days after the date of filing. Such a lapse of time would permit pipeline purchasers to reflect their increased gas costs, if any, by filing rate in-

creases with the Commission. Where such pipeline rate increases are limited to tracking producer increases, we would waive, where necessary, the requirement for supporting schedules under Section 154.63 of our Regulations (18 CFR 154.63) provided such schedules are submitted within four months from the date of the pipeline's increased rate filing.

In order to avoid the administrative task of issuing suspension orders with respect to each of the increased rate filings by producers resulting from the lifting of the moratorium, we would provide in the order that each filing shall be collectible, subject to refund, 45 days after filing and that the Secretary would advise the filing party of the Commission docket number and the effective date relating thereto.

Any proposed increased rate in excess of the applicable ceiling prescribed in Opinions No. 546 and 546-A may be unjust, unreasonable, unduly discriminatory, or preferential, or otherwise unlawful. For this reason any such above ceiling rate led subsequent to the lifting of the moratorium would be suspended by the order in Docket No. AR69-1 and become effective as indicated above.

Accordingly, under the authority granted the Federal Power Commission by the Natural Gas Act, particularly Sections 4, 5, 7 and 16 (52 Stat. 822, 823, 824, 825, 830; 56 Stat. 83, 84; 61 Stat. 459; 76 Stat. 72; 15 U.S.C. 717c, 717d, 717f, 717o), the Commission proposes to revoke paragraphs (f) and (g) of § 154.105, Area rates; Southern Louisiana area, in Part 154, Chapter 1, Title 18 of the Code of Federal Regulations.

All interested persons may submit to the Federal Power Commission, Washington, D.C. 20426, not later than September 14, 1970, data, views, comments and sug-

gestions in writing concerning the proposed termination of the moratorium in Southern Louisiana and the consequent revocation of paragraphs (f) and (g) in 18 CFR 154.105. An original and nine conformed copies should be filed with the Commission. Submissions to the Commission should indicate the name and address of the person to whom correspondence in regard to the proposal should be addressed, and whether the person filing them requests a conference at the Federal Power Commission to discuss the proposed termination of the Southern Louisiana moratorium. The Commission will consider all such written submissions before acting on the matters herein proposed.

The Secretary shall cause prompt publication of this notice to be made in the Federal Register.

By direction of the Commission.

GORDON M. GRANT,
Secretary.

United States of America
Federal Power Commission

Before Commissioners: John N. Nassikas, Chairman;
Lawrence J. O'Connor, Jr., and
John A. Carver, Jr.

Southern Louisiana Area Rate Proceeding } Docket Nos. AR61-2, *et al.*

ORDER DENYING APPLICATION FOR REHEARING

(Issued August 26, 1970)

On July 31, 1970, the Public Service Commission of the State of New York filed an application for rehearing of the Commission's order issued on July 2, 1970, whereby any rate reductions, refunds or other obligations required to be made in Opinion No. 546, as amended, were stayed until further order of the Commission. The New York Commission's application sets forth no new facts or principles of law which were not fully considered by the Commission in the July 2 order, or which, having now been considered, warrant any modification of that order.

The Commission orders:

The application for rehearing of the Commission's order issued on July 2, 1970, filed on July 31, 1970, by the Public Service Commission of the State of New York is denied.

By the Commission.

(SEAL)

GORDON M. GRANT,
Secretary.

Introduction and Summary and Conclusions from the Federal Power Commission's Staff Report on National Gas Supply and Demand, Bureau of Natural Gas, September 1969

INTRODUCTION

Evidence is mounting that the supply of natural gas is diminishing to critical levels in relation to demand. There is a compelling need for accurate and current analysis and interpretation of this trend. Prior studies of future natural gas availability have proven to be overly optimistic. The purpose of this report is to provide a realistic and objective outlook on the natural gas supply-demand relationship as a guide to effective regulatory and management decisions.

On the basis of current trends, only a few years remain before demand will outrun supply. During this period decisions of increasing urgency will confront industry and government policy makers with respect to gas prices, market expansions, exports and imports, and substitute fuel technology and availability. Timely action can extend the usefulness of the natural gas resource base and ease the inevitable transition to a gas economy in which imported and substitute gas fuels will play an increasingly important role. Figure 1, a hypothetical gas supply-demand balance case, is illustrative of the timing problem and the value of purposeful planning for future gas supply. The dashed supply line represents a continuation of present trends. The dotted supply line represents a program which would optimize the usefulness of our remaining natural gas resources and provide the needed additional time for economic and technological developments to furnish the required volumes of substitute fuels at reasonable costs.

A number of studies have been made during recent years of natural gas supply-demand relationships—past, present and future—by government and industry sources. Almost invariably these studies utilized understated projections of

gas demand or optimistic estimates of future reserve additions, or both. The forecasts from such studies have proven to be inaccurate and misleading.

We have made an intensive study covering a short time span in the interests of accuracy. Our projections and forecasts are focused on the five year period 1969-1973.

In addition to looking at the national picture we have examined the supply demand relationships for eight supply areas. One of the most important of these areas, South Louisiana, was selected for detailed analysis of the reserve inventory-deliverability relationship, including an estimate of the approximate time (and reserve to production (R/R) ratio level) of deliverability failure. Other major supply areas will be examined on a comparable basis in the future. Potential and supplemental sources of gas have been evaluated and described as to raw material resources and technology and, where applicable, assessments have been made of cost and timing of entry into the energy market.

In addition to using FPC Forms 14 and 15 and other material in FPC files, we have relied upon both published information and informal communications with other government agencies, especially the Office of Coal Research and the Bureau of Mines of the Department of the Interior and the Atomic Energy Commission. Included in this report are materials on the natural gas reserves of Canada and Mexico and imports and exports of natural gas which in prior years have been issued to the public in the form of separate reports or news releases.

Much of the factual base for this report is industry supplied data, including particularly the American Gas Association (AGA) proven reserve estimates and production information. The gas supply statistics of the American Gas Association are compiled from the confidential records of

individual independent producers and pipeline companies. Neither the confidential reserve data of these companies nor the exact method by which this data is summarized for the American Gas Association reports have ever been divulged to the Federal Power Commission. For purposes of this report we have accepted at face value all industry-furnished supply data. Our conclusions must therefore be weighed against the assumed accuracy of our data base.

Finally, we do not expect events to unfold precisely in line with our forecasts. There will be unpredictable factors at work during the forecast period. However, we have not hedged our forecasts by offering multiple choice answers; instead, we have set forth what we believe to be reasonable approximations of what will transpire over the next 5 years.

CHAPTER I
SUMMARY AND CONCLUSIONS

Our analysis of the national gas supply and demand relationship leads us to conclude that:

A major new government-industry program is needed immediately to insure the continued growth of natural gas service during the next decade. The program must be directed to speeding up the exploitation of the natural gas resource base and the development of supplementary gas sources. Basic elements for consideration should include: exploration incentives; Federal government leasing policies, both onshore and offshore; policies for imports of pipeline natural gas and liquefied natural gas; priorities for gas use in a short supply situation and Federal and private R&D expenditures for synthetic fuels.

Specific findings in this report which lead to the above conclusion are summarized as follows:

1. *The national reserves to production (R/P) ratio* (excluding Alaska) *will drop from the current 11.6 level to 10.2 by the end of 1973. Even a substantial improvement in reserve additions during the 1969-1973 period above that experienced during the past five years will not prevent the R/P ratio from dropping to about 11 in 1973. Under no foreseeable circumstances will it be possible to hold the R/P ratio at its present level. Even under a greatly accelerated exploration program there is no single producing area, such as South Louisiana, for example, which has sufficient potential for the development of new reserves at the timing and magnitude required to halt the decline in the national R/P ratio* (Chapter II).

2. A critical analysis of "total U.S. proven reserves" by area and category of gas (Chapter II) reveals that:

A. *Regional gas supply deficiencies are probable even when the national R/P ratio is still at or even above the 10 level.*

B. *The R/P ratio for South Louisiana will drop to the critical level of 8 in 1973, after which production growth will be at progressively slower rates.*

C. The uncommitted portion of the total proven reserve inventory will have been exhausted by 1974 at which time the natural gas industry's capacity for growth will be limited.

3. The undiscovered natural gas resources of the contiguous states of the U.S. are estimated to be from two and a half to five times the current proven reserve inventory of 282 billion Mcf. The problem is to change the natural gas from the undiscovered resource category to the proven reserve category at the pace required to meet increasing demands and under economic conditions which will permit

natural gas to retain its important role in the energy mix (Chapters II and IV).

4. U.S. natural gas requirements will continue to increase through 1973 at an average annual rate of 6.0 percent—the same average growth rate experienced during the most recent five year period. In order to meet these requirements Canadian imports are forecast to increase at an average annual rate of about 11 percent—a slightly higher growth rate than in recent years—and domestic production is forecast to increase at an average annual growth rate of 5.8 percent—a slightly lower growth rate than in recent years (Chapter III).

5. The U.S. gas industry and its customers will be increasingly dependent on supplementary sources of gas in the years beyond 1973 and particularly during the 1980's. The most promising of these sources include:

A. *Synthetic Gas from Coal:* The estimated cost of synthetic gas from coal has been cut in half during the past 20 years and is expected to be competitive with pipeline natural gas at several locations by the end of the next decade. U.S. coal resources are almost unlimited (Chapter IV, Page 65).

B. *LNG Imports by Ocean Tanker:* LNG technology, already fully developed and operational in Europe and North Africa, will soon provide a world-wide natural gas trade. Estimated cost of imported LNG to U.S. northeast coast cities is now nearly competitive with domestic pipeline delivered natural gas and one specific plan for such LNG service has been announced (Chapter IV, Page 60).

C. *Alaskan Natural Gas:* The historic Prudhoe Bay discovery has enlarged the already substantial Alaskan natural gas potential by several orders of

magnitude. The Prudhoe Bay petroleum field will likely be one of the world's largest and opens the possibility of major natural gas production in the U.S. arctic. Transportation via LNG tanker or by pipeline will be costly and difficult, and unlikely within the next five years (Chapter IV, Page 48).

D. *Canadian Imports:* The natural gas resource base of Canada, including the Canadian arctic, is estimated to be as large as that of the contiguous United States and is in a very early stage of development. The Canadian natural gas industry is healthy and growing very rapidly. We foresee an average 11 percent annual gain in Canadian export sales to the U.S. market during the 1969-1973 period and even higher annual sales gains for the years beyond 1973 assuming mutually agreeable prices. For its fulk development the Canadian natural gas industry must seek exports and the U.S. is the most logical customer (Chapter IV, Page 54).

In the United States Court of Appeals
for the Fifth Circuit

No. 27492

Southern Louisiana Area Rate Cases
Austral Oil Company, Inc., *et al.*, Petitioners
v.
Federal Power Commission, Respondent

On Petitions to Review Orders
of the Federal Power Commission

RESPONSE OF FEDERAL POWER COMMISSION TO PETITIONS FOR REHEARING AND REQUEST FOR REMAND

Pursuant to directions of this Honorable Court of May 11, 1970, the following response is respectfully filed on behalf of the Commission, and a request for remand is made upon direction of the Commission.

I

The Court directed response to the question of "whether the Federal Power Commission has authority to stay, modify, or rescind an order once that order has been affirmed by this Court, if circumstances appearing since the entry of the order seem to make these actions advisable."

For the reasons hereinafter stated, the Commission clearly has the authority to modify, rescind, or set aside a rate order or moratorium affirmed by a Court, *but only prospectively* from the date of a subsequent Commission order [Commission's emphasis]. The Commission may now open the possibility of prospective rate increases, without

a hearing, by modifying, staying, or lifting the moratoria on rate increase filings imposed by an order, thereby allowing interim rate increases subject to refund. The Commission would not, however, have authority to permit any *retroactive* increases or decreases in a rate order, unless authorized to do so by a Court [Commission's emphasis].

The Commission has no authority to prescribe or to permit retroactive rate changes (*e.g., F.P.C. v. Sunray DX Oil Company*, 391 U.S. 9, 24 (1968); *F.P.C. v. Hope Natural Gas Co.*, 320 U.S. 591, 618 (1944); *Hope Natural Gas Company v. F.P.C.*, 196 F.2d 803 (CA 4, 1952); *Shell Oil Company v. F.P.C.*, 334 F.2d 1002 (CA 3, 1964)). See also *Arizona Grocery Company v. Atchison, Topeka and Santa Fe Railway Co.*, 284 U.S. 370 (1932). It is also clear that Courts have no authority to order reparations under the Gas and Power Acts. *Montana-Dakota Utilities Company v. Northwestern Public Service Company*, 341 U.S. 246, 254 (1951).

Therefore, prospective changes in rates—increases or decreases—are the method by which the Commission adjusts for circumstances appearing since the entry of an order, unless the reviewing Court otherwise directs.

II

The Court has also directed this Commission to respond to the question of "whether this Court may, in the exercise of its equitable powers, affirm an order of the Commission while preserving the authority of the Federal Power Commission to stay, modify, or rescind the order if the circumstances seem to make these actions advisable."

The Court has such broad powers under Section 19(b) of the Natural Gas Act that the question of the extent of

its equitable powers apparently has not been decided. Under Section 19(b), from which the Court's jurisdiction to review a Commission order is derived, the Court may "affirm, modify or set aside such order in whole or in part." In addition, on motions for leave to adduce additional evidence (such as were filed in this case), the Court may order additional evidence to be taken before the Commission upon hearing in such manner and upon such terms and conditions as to the Court may seem proper, if there were reasonable grounds for failure to adduce such evidence in the proceedings. The Commission may modify its findings as to facts by reason of the additional evidence so taken, and it must file with the Court which ordered the hearings such modified and new findings for review. Thus, the Court has full statutory power to authorize or to instruct the Commission to (a) reconsider the record before it under standards set by the Court or (b) reopen the record for a specific purpose or purposes and to submit any modifications of the rate order to the same Court for further review in the light of the Court's standards, or both, without necessarily reversing the Commission and vacating the order for a new hearing.

Any equitable powers which would transcend these statutory powers would be determined by this Honorable Court.

III

Comment on the petitions for rehearing will be limited to one point. The petitions reflect doubt, disagreement and controversy over whether this Court intended to authorize this Commission to make retrospective adjustments, if it deemed appropriate, in the rates set in Opinion 546 and 546-A *as of the effective date of the Commission opinions* (October, 1968) to the present or whether the Court in-

tended, by use of the words "sustained in full" (slip op. pp. 2, 69), to restrict the Commission to prospective changes from some future date when subsequent Commission orders, if any, are issued lifting the moratoria or establishing a new just and reasonable rate [Commission's emphasis].

Any doubt or disagreement among the parties might hamper expeditious handling of the Southern Louisiana Area rates. Therefore, the Commission urges any clarification deemed appropriate by this Honorable Court.

REQUEST FOR REMAND

In order that the Commission can discharge its regulatory responsibilities consistent with the Court's opinion, a remand is respectfully requested. Chairman Nassikas and Commissioner O'Connor do not concur in the request for remand. The separate views of Commissioner O'Connor are attached.

Respectfully submitted,

Gordon Gooch,
General Counsel,

Peter H. Schiff,
Solicitor,
For respondent.

Federal Power Commission,
Washington, D. C. 20426.

May 1970

STATEMENT OF COMMISSIONER LAWRENCE J. O'CONNOR, JR. OPPOSING A REQUEST FOR A REMAND OF OPINION NOS. 546 and 546-A

The Commission issued Opinion 546-A on March 20, 1969. In that decision the just and reasonable rates for natural gas in South Louisiana were established. To request a remand to reconsider that decision now, almost a decade after the initiation of the proceeding, would create a climate which will inhibit a possible settlement in the pending AR69-1 proceeding which was an outgrowth of the Commission's awareness that the gas supply situation was changing.

I feel that a remand of the instant litigation at the Commission's request would seriously inhibit fruitful settlement efforts in AR69-1. To in any way undermine such efforts would be most unfortunate. I firmly believe, and have so stated, that settlements among the various parties, when possible, are the most promising method of reaching accord and realizing results in the shortest period of time. The Court, in affirming Opinions 546 and 546-A, was cognizant of the impending gas shortage. A remand of this decision now would in no way expedite a solution to that problem and, indeed, might retard another significant pending effort which is seeking a resolution to that problem.

I, therefore, do not concur in a request for remand and must urge the Court to deny rehearing.

/s/ LAWRENCE J. O'CONNOR, JR.

United States of America
Before the Federal Power Commission

In the Matter of Area Rate Proceeding, *et al.* (Southern Louisiana Area)	Docket Nos. AR 61-2, *et al.*

MOTION OF THE PIPELINE GROUP FOR FURTHER ORAL ARGUMENT

Come now Southern Natural Gas Company, Texas Eastern Transmission Corporation, Texas Gas Transmission Corporation, Transcontinental Gas Pipe Line Corporation, Trunkline Gas Company and United Fuel Gas Company, *et al.*, (hereinafter called "Pipeline Group"), each of which is a party to this proceeding, and request that the Commission schedule further oral argument in the above-entitled proceedings for the purposes and reasons as hereinafter set forth, and any other matters which the Commission may wish to consider in the rehearing which it has granted in this proceeding.

I.

Each of the pipelines in the Pipeline Group is extremely concerned about the impact of the prices established in Opinion No. 546 and accompanying order, issued on September 25, 1968, upon the future exploration, development and availability of additional natural gas reserves. The Pipeline Group, therefore, is taking this extraordinary step in asking for further oral argument in order to bring the seriousness of the situation and the need for immediate remedial action, forcefully, to the attention of the Commission.

The pipelines are generally convinced that the Southern Louisiana area, and particularly its offshore areas, possess large, undeveloped gas reserves which will be adequate to meet the needs of the industry for many years to come. They are concerned, however, that the rates ordered by the Commission may fail to provide an adequate incentive to the producers to invest the vast sums of money needed for exploration and development of these reserves, on a scale sufficient, to produce enough gas for the Nation's burgeoning natural gas markets. From the standpoint of the pipelines, this is a most significant aspect of the Commission decision in this proceeding. *The members of the Pipeline Group are intimately familiar with the increasingly tight supply situation in the area* and are concerned that the reduction in prices for the area will depress development of new resources below recent levels which fall short of what the Group and gas industry generally will need.

Due to the physical time lag of several years inherent in exploration and development activities, immediate incentive must be provided to meet the forecast demand of the customers presently served by the eleven (11) major interstate pipelines which are heavily relying upon Southern Louisiana as a source of future gas supply.

It must be done before it is too late. The Commission has recognized that new reserves cannot be developed overnight:

> "... *exploration and development cannot be turned on and off like water from a faucet* . . . In determining prices, then, care must be taken that exploration and development will be sustained at an adequate level over the long run and that available *supplies are not allowed to dwindle to a dangerous level.*" (Opinion No. 546 (mimeo p. 126), emphasis supplied.)

The situation becomes even more critical when consideration is given to the additional demands placed upon Southern Louisiana gas reserves by local intrastate markets and markets created by recently enacted air pollution regulations. Additionally, it must be recognized that the majority of pipelines currently purchasing gas in Southern Louisiana have received a substantial portion of their natural gas reserves, in the past, from the Texas Gulf Coast. The rapid growth of the intrastate market in the Texas Gulf Coast, however, has created a situation where today almost all new reserves are consumed by the intrastate market and practically no replacements are available to replace the liquidating inventory of gas reserves in that area committed to the interstate market. The limited availability of the Texas Gulf Coast as an alternative supply source places even greater pressures upon Southern Louisiana as the primary source of future gas supplies for the heavily populated eastern half of the United States.

The industry's average finding rate in recent years would not have been adequate to meet the increasing growth in demand if it had not been supplemented by an historical inventory of gas reserves built up over many earlier years in connection with the search for oil. This historical inventory, however, has not been committed to existing markets and no such cushion is available to supplement future finding rates. In light of the producing industry's current capability to directionally explore for gas, it is expected that the prospect of substantial new gas reserves being found as an incident to the search for oil will be much lower.

It must be remembered that most of the major producers have world-wide operations, and they are in no

way obliged to invest, or reinvest, funds in domestic natural gas operations. In this connection, Staff Witness Shaffner's Exhibit 24, Schedule 5 shows that only 2.22 percent of the revenues of the major integrated oil companies, who are the largest producers, come from gas activities. Under such circumstances, these companies cannot be expected, with the lower rates established in Opinion No. 546, to allocate the increased funds for adequate exploration and development of natural gas to meet future requirements when consideration is given to the other world-wide investment opportunities available to such companies.

III.

The Commission has used national average cost levels as the basis for establishing rates for new gas in the Southern Louisiana area. Such costs were used, notwithstanding the fact that the record clearly establishes that national average costs are substantially below average cost levels associated with production in the South Louisiana area. Although a meaningful record comparison is available on an historical basis only, there can be little doubt that a similar differential would exist between national average costs and Southern Louisiana area costs for new gas. In this connection, it should be noted that, in the *Permian* case, area historical costs were approximately at the same level as the national historical costs. Thus, the situation there presented was not comparable.

IV.

On June 4, 1968, the Commission issued Order No. 363 setting forth its Statement of Policy in connection with offshore Southern Louisiana pipeline projects to be con-

structed during 1969 and thereafter. The essence of that order is to admonish pipelines to minimize offshore transportation costs by (1) utilizing large diameter pipe and (2) attaching sufficient reserves to utilize the capacity of the pipelines at the earliest possible date. However, the Commission's reduction in producer rates, in Opinion No. 546, appears to run counter to the policy enunciated in Order No. 363 by reducing the incentive to explore for, and develop, the additional natural gas reserves which are needed not only to meet the customers' requirements but also to implement the economic policy considerations which led to the issuance of Order No. 363.

V.

In its Opinion On Rehearing of Opinion No. 546, the Commission will have its last opportunity, for many years to come, to establish producer rates in Southern Louisiana which will offer reasonable assurance of providing the gas consumers with adequate future supplies of natural gas from this vitally important area. As has been indicated above, *the pipelines are concerned with the increasing difficulty in obtaining additional natural gas reserves in this area to meet current demands.* Of greatest concern, perhaps, is the prospect that independent producers, because of the reduced rates provided in Opinion No. 546, will divert their investment funds to other fields. For all of these reasons, the Pipeline Group is asking for an opportunity to present oral argument before the Commission in order to impress upon the Commission the urgent need for *immediate* remedial action. [Movant's emphasis].

The situation is of such magnitude as to warrant, if not compel, direct dialogue with the Commission, which can only be accomplished through oral argument.

WHEREFORE, it is respectfully requested that, for all of the above stated reasons, the Commission set a date for the purposes of hearing further oral argument in the instant proceeding.

Respectfully submitted,

SOUTHERN NATURAL GAS COMPANY
TEXAS EASTERN TRANSMISSION CORPORATION
TEXAS GAS TRANSMISSION CORPORATION
TRANSCONTINENTAL GAS PIPE LINE CORPORATION
TRUNKLINE GAS COMPANY
UNITED FUEL GAS COMPANY, *et al.*

By /s/ RAYMOND N. SHIBLEY
Raymond N. Shibley, Of Counsel
for the AR 61-2 Pipeline Group

November 22, 1968
Washington, D.C.

United States of America
Before the
Federal Power Commission

Area Rate Proceeding (Southern Louisiana Area) Amerada Petroleum Corporation, et al.	Docket Nos. AR61-2 R160-18, *et al.*

PETITION TO INTERVENE OF INDEPENDENT NATURAL GAS ASSOCIATION OF AMERICA

Independent Natural Gas Association of America (INGAA) hereby respectfully petitions the Federal Power Commission for leave to intervene in the above-entitled proceeding.

In support of its Petition, Petitioner states the following:

-I-

Independent Natural Gas Association of America (INGAA) is a non-profit trade association whose membership includes, among others, virtually all of the major pipeline companies subject to the Federal Power Commission's jurisdiction. For many years INGAA has appeared in rulemaking, rate and certificate proceedings before the Commission when issues affecting the general interests of its members or the natural gas industry were involved.

-II-

On September 25, 1968 the Commission rendered its Opinion No. 546 in this matter, which determined just and reasonable rates for natural gas producers in the Southern Louisiana area. Numerous Applications For Rehearing of Opinion No. 546 were filed under the provisions of Section

19(a) of the Natural Gas Act and rehearing was granted by order of the Commission issued October 23, 1968 for the sole purpose of further consideration of the applications for rehearing.

-III-

On November 22, 1968 six interstate pipeline companies[1] (hereinafter called Pipeline Group) jointly filed a Motion for Further Oral Argument. This unusual step was taken because of their extreme concern over the impact of the prices established in Opinion No. 546 and accompanying order upon the future exploration, development and availability of additional natural gas reserves. The current gas supply situation confronting the pipeline industry is a matter of great concern to all of INGAA's members. The prices established in Opinion No. 546 in Southern Louisiana, it is believed, may seriously affect the availability of gas from this important supply area to the detriment of the consuming public, to the pipeline industry and to investors. Concurrently with the filing of the instant Petition to Intervene INGAA is filing a Joinder in the Pipeline Group's Motion, urging the Commission to grant further oral argument.

-IV-

The importance of Southern Louisiana as a source of supply to the interstate pipelines can hardly be over emphasized. The Commission has stated that "from a national standpoint, Southern Louisiana is both the most important and the most productive natural gas area in the entire nation." (Op. 546, p. 7, mimeo.) According to the Commission's recent report entitled "The Gas Supplies of Inter-

1. Southern Natural Gas Company, Texas Eastern Transmission Corporation, Texas Gas Transmission Corporation, Transcontinental Gas Pipe Line Corporation, Trunkline Gas Company, and United Fuel Company, *et al.*

state Natural Gas Pipeline Companies 1966", published in August 1968, approximately 3,610,800 MMcf of natural gas were produced and/or purchased by major interstate pipeline companies from Southern Louisiana in 1966. This volume is over one-third of the total gas produced or purchased by interstate lines in the entire United States. Obviously the pipeline companies subject to the Commission's jurisdiction have a deep interest in the Southern Louisiana area and in the continuing availability of gas from this important source of supply.

-V-

This Petition is not timely filed within the purview of Section 1.8 of the Commission's Rules of Practice and Procedure. It is realized that a party seeking to intervene at this late stage of a proceeding has a heavy burden of showing that good cause exists for allowing even limited intervention. Although the rules governing practice and procedure are important to orderly administrative processes, they must give way where matters of paramount public concern require that such action be taken.[2] INGAA submits that good cause does exist for allowing this late intervention and in support thereof shows as follows:

1) Heretofore the pipelines' point of view has been adequately represented by the limited number of pipeline purchasers in the Southern Louisiana area which had intervened and actively participated in the pro-

2. A recent case in point is the Commission's order of November 19, 1968 granting the late Petition for Leave to Intervene filed by the City of New York in *Consolidated Edison Company of New York, Inc.*, Project No. 2338, and re-opening proceedings for further hearing concerning the important public interest questions raised in the City of New York's Petition. See also order granting limited intervention out-of-time issued May 17, 1968 in the matters of *Pacific Gas Transmission Co., et al.*, Docket Nos. CP67-187, *et al.*

ceeding. Now, however, the posture of the proceeding and the shadows cast by the Commission's order is such as to engage the attention of the entire industry;

2) Substantial changes have occurred since the proceeding began, particularly with reference to the change in available gas supplies, in part due to the drainoff by intrastate purchasers, but more importantly the increasing reluctance of the producing segment of the industry to expend funds for the exploration and development of new gas reserves;

3) That Opinion No. 546, has, we believe, inadequately translated into rates considerations related to future gas supplies;

4) The Commission, in discharging its responsibility under the Natural Gas Act to protect the consumer and the public interest by assuring a viable pipeline industry, should permit the views of the pipeline industry, represented by your Petifioner, to be heard before any final action on rehearing is taken; no individual party to this proceeding is in a position, as is INGAA, to express the pipeline industry's concern in the premises; and

5) Granting INGAA's Petition to Intervene will not delay the orderly disposition of this important matter, and will serve to aid the Commission in resolving in the public interest this most difficult situation.

-VI-

The name, title and post office address of the persons to whom correspondence and communications in regard to this Petition are to be directed are:

Jerome J. McGrath, General Counsel
Harry L. Albrecht, Counsel
Independent Natural Gas Association of America
918 Sixteenth Street, N.W.
Washington, D.C. 20006

WHEREFORE, Independent Natural Gas Association of America prays that it be allowed to intervene and be made a party to this proceeding.

Respectfully submitted,

INDEPENDENT NATURAL GAS
ASSOCIATION OF AMERICA

/s/ JEROME J. MCGRATH
JEROME J. MCGRATH
HARRY L. ALBRECHT
Counsel for Independent
Natural Gas Association
of America

Dated at Washington, D.C.
December 2, 1968

City of Washington
District of Columbia—ss

Jerome J. McGrath, being first duly sworn according to law, says that he is General Counsel for Independent Natural Gas Association of America; that he has read the foregoing Petition to Intervene and is familiar with the contents thereof; that he has executed the same for and on behalf of said Association with full power and authority so to do; and that the facts set forth therein are true and correct to the best of his knowledge, information and belief.

/s/ JEROME J. MCGRATH

Subscribed and sworn to before me, a Notary Public in and for the District of Columbia, this 2nd day of December, 1968.

.....
Notary Public

My Commission expires

United States of America
Before the
Federal Power Commission

Area Rate Proceeding (Southern Louisiana Area) Amerada Petroleum Corporation, et al.	Docket Nos. AR61-2 R160-18, *et al.*

JOINDER OF INDEPENDENT NATURAL GAS ASSOCIATION OF AMERICA IN MOTION OF PIPELINE GROUP FOR FURTHER ORAL ARGUMENT

Now comes the Independent Natural Gas Association of America (INGAA) and submits its Joinder in the Motion of the Pipeline Group[1] For Further Oral Argument in the above consolidated matters, filed herein on November 22, 1968. This filing is being made concurrently with the filing of a Petition to Intervene by INGAA, and its acceptance by the Commission will depend upon the action taken on INGAA's Petition.

-I-

INGAA is a non-profit trade association whose membership includes, among others, virtually all of the major pipeline companies subject to the Commission's jurisdiction under the Natural Gas Act. For many years INGAA has appeared in rule-making, rate and certificate proceed-

1. Southern Natural Gas Company, Texas Eastern Transmission Corporation, Texas Gas Transmission Corporation, Transcontinental Gas Pipe Line Corporation, Trunkline Gas Company and United Fuel Gas Company, *et al.*

ings before the Commission when issues affecting the general interests of its members or the natural gas industry were involved.

-II-

In their Motion For Further Oral Argument the Pipe line Group set out in detail the compelling reasons, in the public interest, for granting their request that the Commission hear further oral argument before acting on the pending applications for rehearing. INGAA adopts and supports in its entirety the Pipeline Group's Motion.

-III-

INGAA realizes that the procedure urged upon the Commission is highly unusual, but it is not without precedent.[2] Moreover, the mounting problem of adequate gas supplies is of paramount concern to the pipeline industry and, we believe, should be of paramount concern to the Commission. The Pipeline Group's Motion is not an idle gesture or a dilatory tactic. It is founded upon a genuine concern that the pricing provisions of Opinion 546 could have an adverse effect on the exploration and development activities of producers — to such an extent that the investments needed to find and produce additional gas reserves will fall far short of that needed to meet the growing demands of the interstate markets. Furthermore, it is well known that more and more gas is being channeled into intrastate markets beyond the reach of the interstate lines. This may partially insulate the markets in producing states from the impact of diminishing producer invest-

2. For example, in *Panhandle Eastern Pipe Line Co.*, Docket Nos. G-2035, *et al*, the Commission granted oral argument to consider points raised in applications for rehearing and then modified its original Opinion No. 274 as a result of such argument. 13 FPC 1501, 1502 (1954).

ments, but it is scarce comfort to the pipelines who have the responsibility of maintaining reserves of gas adequate to meet existing and potential demands. The Commission too has the responsibility under the Act to assure, to the full extent possible, a strong, healthy industry. Nothing could be more important than assuring the continued availability of adequate gas supplies.

-IV-

It is to be noted that independent producers are under no statutory obligation to seek out new gas reserves. Nor are they under any statutory compulsion to sell their reserves to interstate pipeline companies. On the other hand, natural gas is the lifeblood of the pipeline companies' existence and if the sources of supply begin to dry up because of the lack of exploratory effort or diversion of gas to intrastate markets, the industry is faced with a bleak future indeed. The Commission, we submit, has the heavy responsibility to the consuming public and the industry to see that such misfortune does not as result of its own preventable action, befall either the public or the industry.

The point we wish to make is that the current gas supply situation is becoming critical. Opinion 546 could have the effect of making it even more critical because of its pricing provisions. As the Pipeline Group point out in their Motion:

> "The situation is of such magnitude as to warrant, if not compel, direct dialogue with the Commission, which can only be accomplished through oral argument." (Motion p. 7).

WHEREFORE, INGAA joins in and supports the Pipeline Group's Motion For Further Oral Argument and urgently

requests that such Motion be granted and oral argument be held at an early date before the Commission, sitting *en banc*.

Respectfully submitted,

INDEPENDENT NATURAL GAS
ASOCIATION OF AMERICA

/s/ JEROME J. MCGRATH
JEROME J. MCGRATH
HARRY L. ALBRECHT
Counsel for Independent Natural Gas
Association of America

Dated at Washington, D.C.
December 2, 1968

United States of America
Before the Federal Power Commission

In the Matter of Area Rate Proceeding, *et al.* (Southern Louisiana Area)	Docket Nos. AR 61-2, *et al.*

STATEMENT OF UNITED GAS PIPE-LINE COMPANY IN SUPPORT OF MOTION OF CERTAIN PRODUCERS FOR LIMITED REOPENING AND CONSOLIDATION

United Gas Pipe Line Company (United) respectfully shows that it supports the joint motion filed by producer-respondents Texaco Inc., et al, for a limited reopening of these proceedings and for consolidation of the gas supply investigation proposed in Docket No. RI69-470 by the New York Public Service Commission, if such an investigation is to be made.

I.

As a major purchaser of gas in the South Louisiana Area,[1] *United is vitally concerned with the decline in the relation of new supply to production in South Louisiana and with the apparent effect of the Commission's Opinion No. 546 to discourage the needed investment of funds by producers to to meet the growth in demand for gas supplies in the South Louisiana Area.* [emphasis added.] United believes the adequacy of gas reserves and the adequacy of the incentives allowed producers cannot be separated and that it is imperative that the Commission consider these problems

1. In 1966 United purchased over three-quarters of a trillion cubic feet which constituted over 20 per cent of the gas sold to interstate pipeline companies in the South Louisiana Area. (FPC S-187)

jointly at this time rather than postponing either aspect of the matter.

WHEREFORE, United prays that the Commission grant the joint motion for limited reopening and consolidation and fix the matter for hearing promptly.

Respectfully submitted,

UNITED GAS PIPE LINE COMPANY

By /s/ C. S. QUINN
C. S. QUINN
Vice President

AMERICAN GAS ASSOCIATION, INC. [Letterhead]
605 Third Avenue—New York, N. Y. 10016
Area Code 212—Telephone 972-5500

W. MORTON JACOBS
President

December 16, 1968

Hon. Lee C. White
Chairman
Federal Power Commission
441 "G" Street, N.W.
Washington, D. C. 20426.

Dear Chairman White:

This is an *urgent appeal* to your Commission, prompted by our concern for the maintenance of uninterrupted gas utility service. This letter is written at the request of the Board of Directors of this Association.

Every major city and town in the United States depends on natural gas for growing utility services. Gas heats over thirty million homes. It supplies thousands upon thousands of essential industries. It provides over one-third of all fuel energy required throughout the Nation. In all areas of consumption demands are growing steadily. Both the public health and welfare and government policy require that adequate supplies be available to meet these increases through the years.

But *distribution utilities now seeking to contract for increases in long term supplies from interstate pipelines are being refused because: (1) gas for rapidly growing requirements cannot be secured by the pipelines because of a lack of incentive and necessary effort by the producing segment of the industry to explore for and develop needed reserves, and because of the increasing dedication of re-*

serves to the more attractive intrastate market due to its higher prices and greater certainty of contract terms, both of which circumstances are directly related to the levels of permissible area field prices for new gas sold in interstate commerce; (2) there is some indication that pipelines may not be in a position to expand their systems at present high costs of capital when faced with the inadequate rate of return the Commission presently seems disposed to follow; and (3) presently needed offshore Louisiana reserves are being delayed in their connection to the interstate pipeline network.

We earnestly invite the Commission's attention to the dangers of this situation. Following World War II there was a period of shortage in supply to many of the distribution utilities. There were long delays in the satisfaction of essential new services. There were long backlogs of homes awaiting gas heat. Serious curtailments were made in deliveries of fuel to industry. Nothing could hurt the consuming public more than a choking off of supplies necessary for the increased energy requirements of the future.

To offset an impending shortage, there is no authority under the law to compel producers to drill wells or devote production to the interstate market or to compel pipelines to devote capital to further expansion. The only course which government may follow is to establish prices and policies which will provide the reasonable economic basis for all these necessary, yet voluntary, actions on the part of producers and pipelines.

Further emphasizing the significance of such desirable government policies are the conclusions from many sources, including the Potential Gas Committee, whose studies AGA actively supports, that there is no apparent physical prob-

lem of potential natural gas supplies in the United States. Indeed, there is every indication that the required finding and development of this vitally needed natural resource awaits only this Commission's acknowledgment that additional economic incentive is needed.

Having this situation in mind, the American Gas Association feels compelled to make the Commission, by this open letter, the following recommendations:

That the Commission take a new look at all principles and methods by which it arrives at area price levels for new gas, to insure that the prices resulting will in fact be sufficient to occasion the necessary exploration, development and devotion of gas to interstate commerce.

That renewed encouragement be accorded efforts toward settlement of area rate cases generally, since negotiated settlement agreements approved by the Commission should evolve price levels which will accomplish these all-important supply objectives.

That the Commission take a new look at the methods by which it determines acceptable rates of return, with special attention being given to the effects upon construction of the current high costs of raising new capital.

That the Commission foster in every appropriate way the construction of new pipelines offshore Louisiana, to the end that these extremely essential facilities may be installed in time to deliver gas for the critical 1969-1970 winter demands.

These matters could well be a subject for discussion by the FPC Natural Gas Advisory Council.

We respectfully take this extraordinary step because of the vital nation-wide obligations of our gas distribution

company members and because of the imminence of a critical gas supply availability situation.

Sincerely,

/s/ W. Morton Jacobs

WMJ: as

cc: Commissioners: Carl E. Bagge
Albert B. Brooke
John A. Carver, Jr.
L. J. O'Connor, Jr.

Appendix
Before the
Federal Power Commission

Adequacy of
Natural Gas Reserves

REQUEST OF NEW YORK COMMISSION FOR INVESTIGATION

The Public Service Commission of the State of New York hereby requests the Federal Power Commission to institute an investigation into (a) the adequacy or inadequacy of gas reserves held or controlled by the major producers and pipelines and (b) the claims of a natural gas shortage and the use of such claims to influence the outcome of FPC proceedings and to restrain the interstate sale of natural gas.

Statutory Authority

Section 14(a) of the Natural Gas Act provides:

> "The Commission may investigate any . . . matters which it may find necessary or proper in order to determine whether any person has violated or is about to violate any provision of this act . . . or to aid in the enforcement of the provisions of this act or in prescribing rules or regulations thereunder, or in obtaining information to serve as a basis for recommending further legislation to the Congress. . . ."

Section 14(b) of the Natural Gas Act provides:

> "The Commission may, after hearing, determine the adequacy or inadequacy of the gas reserves held or controlled by any natural-gas company, or by anyone on its behalf, including its owned or leased properties or royalty contracts . . . ."

Section 20(a) of the Natural Gas Act provides:

> ". . . The Commission may transmit such evidence as may be available concerning such acts or practices or concerning apparent violations of the Federal antitrust laws to the Attorney General, who, in his discretion, may institute the necessary criminal proceedings."

Necessity for Investigation

Although claims of a natural gas shortage have circulated for many years, a recent letter submitted to the Commission by the American Gas Association under date of December 16, 1968, asserts that distributors and pipelines are being refused service by many, if not most, producers on the ground that the prices found by the FPC to be just and reasonable are not high enough. This refusal to serve, if it exists, is potentially serious for three separate reasons, any one of which would warrant formal investigation by this Commission:

First, such a shortage, if proven on an evidentiary record, would require a review to determine the reasons therefor and the appropriate regulatory response thereto.

Second, to the extent that the actual or threatened withholding of gas was being used to coerce parties to FPC proceedings to modify their positions, it would be essential for the FPC to take corrective measures to protect the integrity of its processes.

Third, any group effort to fix the price at which natural gas shall be sold in interstate commerce, and any group refusal to sell gas to particular customers or groups of customers, would, constitute "apparent violations of the Federal antitrust laws" which the Commission is obliged to call to the attention of the Attorney General under Section 20(a) of the Natural Gas Act.

Suggested Scope of Investigation

To obtain the maximum results while keeping the proceeding within manageable proportions, the scope of the investigation might appropriately be limited to the offshore area of Louisiana. The Commission could then confine its inquiry to those natural gas companies (both producer and pipeline) having offshore leases, and could invite the participation of the Secretary of the Interior, the major lessor in the offshore area.

Natural gas is a valuable national resource, and both the public and the Federal Power Commission should have the most accurate and reliable reserve information that can be obtained so that, among other things, they can realistically evaluate producer claims of a natural gas shortage. The need for more reliable information with respect to offshore areas is especially compelling: This is the area from which the bulk of new dedications are expected; it is an area of peculiar federal concern, since not only is the federal government the original owner and lessor of the gas, but no transportation of this gas is possible without FPC approval; and it is an area where, once the location of unconnected reserves is determined, substantial economies in transportation are possible through network analysis.

Respectfully submitted,

PUBLIC SERVICE COMMISSION
OF THE STATE OF NEW YORK

By .....
Kent H. Brown, Counsel
44 Holland Avenue
Albany, New York 12208

Morton L. Simons
1819 H Street, N.W.
Washington, D.C. 20006
January 8, 1969

United States of America
Before the
Federal Power Commission

In the Matters of Area Rate Proceeding, *et al.* (Southern Louisiana Area). Requested Investigation of Adequacy of Natural Gas Reserves	*Docket Nos.* AR61-2, *et al.* R169-470

MOTION OF CONSOLIDATED NATURAL GAS SYSTEM COMPANIES FOR LIMITED REOPENING OF THE SOUTHERN LOUISIANA AREA RATE PROCEEDING AND FOR OTHER ACTION BY THE COMMISSION

The undersigned, Consolidated Natural Gas System Companies (Consolidated Companies), intervening parties to the above proceedings at AR61-2, *et al.*, respectfully move (1) that the Commission, in the interest of the public welfare and of consumers of natural gas, reopen the record in Docket AR61-2, *et al.*, for the immediate and limited hearing of important facts (a) which have occurred since the closing of the record in these proceedings and, in large part since the issuance of the Examiner's and Commission's decisions herein, and (b) which relate to a current and prospective unavailability of new gas supplies for purchase to meet increases in consumer demands, (2) that the commission consolidate with such hearing, to the extent it deems necessary, any investigation which it may institute and make at Docket RI69-470, (3) that the Commission cause such hearing to be prosecuted by all parties with the utmost dispatch, and (4) that, in the rehearing heretofore instituted of

Opinion No. 546, the Commission consider the record in such further hearing in determining what changes, if any, are necessary in the area rates set forth in Opinion No. 546 in order to overcome the shortage of available gas which is now at hand and assure full and adequate supplies for increasing consumer demands. And, in support thereof, Consolidated Companies respectfully show:

1. *This is an extraordinary motion filed at the eleventh hour in these proceedings because of a situation of utmost importance to the interests of the public* and the more than 1,300,000 customers served by the Consolidated Companies at retail and wholesale in Ohio, Pennsylvania, West Virginia and New York. Considering also the consumers served by our wholesale customers, more than 2,000,000 consumers depend on Consolidated Companies for their supplies of gas for essential domestic, commercial and industrial purposes. In 1968, these consumers used more than 750 billion cubic feet of natural gas and their prospective needs are rapidly increasing.

2. At the further hearing here proposed, Consolidated Companies desire to lay before the Commission a *serious problem currently existing* as to the availability of gas for purchase to meet increasing consumer demands, a situation which has arisen since the record in Docket AR61-2, *et al.*, was closed. Consolidated Companies emphasize that, in their opinion and on the basis of industry studies, there is no shortage of undeveloped reserves of natural gas in these United States. If the necessary exploration and development is accomplished and if gas is dedicated to the interstate market, supplies adequate to meet all market requirements for a long period in the future can be provided.

3. During the making of the record in these proceedings, Consolidated Companies saw no prospect of the unavailabil-

ity of gas for purchase to meet the full requirements of their consumers, and this view of the supply situation influenced both their participation in these proceedings and their rate recommendations to the Commission.

4. However, since the closing of the record in these proceedings, marked changes have occurred in the supply situation. This has come about as the combined result of continued declines in the exploration for and development of proved reserves and steady increases in overall consumer demands. During the past three years, the quantity of gas produced annually to meet demands has almost equaled proved reserve additions, whereas, in prior years, reserve additions had considerably exceeded annual production. Furthermore, during the past three years, the ratio of total proved gas reserves to annual production has steadily declined until now proven reserves are less than 16 times annual production. In prior years, there were major onshore developed but unconnected gas fields, but now there are no such fields that are not already tied into the market.

5. Trends of this character, if not reversed, obviously foreshadow a gas shortage at some point in time, *and the worsening situation has been dramatically evident to Consolidated Companies during 1968 by the fact that we have not as yet been able to contract for large supplies essential to meet increases in consumer demands expected to come on our lines in 1970 and 1971.* Consolidated Companies secure the bulk of their necessary supplies by purchase from five of the major interstate pipeline companies: Historically, Consolidated Companies have had no problem in contracting for increases in supply, and, indeed, these companies have normally vied for an opportunity to increase their service to us. While we hope the situation may change, none of the pipeline suppliers are now able to contract for

the quantities we require, and, while higher interest costs are a problem to some, the unavailability of gas for purchase in the field is a present bar to increases in contracts by the others.

6. On the basis of this experience and our own knowledge of production in the area, Consolidated Companies are advised and believe that *there is a serious shortage of gas available for purchase in the South Louisiana Area,* and that there must be a marked increase in exploration and development activities to rectify the situation.

7. The Commission has recently authorized the extension of more pipelines into the offshore Louisiana Area and this will make available supplies from some already discovered and developed fields. Certainly, Consolidated Companies will sell to interstate pipelines or have transported for its own use all of its own developed offshore reserves, regardless of the outcome of these proceedings. But the actually developed offshore Louisiana reserves are obviously sufficient to stave off the impending problem for only a short period, particularly when it is remembered that more and more pipelines are reaching into this area for their necessary supplies. In short, to satisfy the needs on a long-term basis, a tremendous amount of exploration and development must be undertaken in the future, and, judging from the trends of the past three years and particularly the rising trend in consumer demand, such exploration and development must be at a level markedly above the level of recent years.

8. In considering the amount of exploration and development necessary in the future, we should emphasize the burgeoning character of consumer demands for gas. Over one third of all of the energy consumed in this country is already provided by natural gas, and as the country grows

so will the demands for natural gas grow. With this degree of dependence on this natural resource, it is not in the public interest to reach a point—as we have in 1968—where distribution and pipeline companies are unable to contract for gas to meet increasing consumer demands.

9. We do not contend that the present critical situation has arisen since the Commission's Opinion No. 546. The current supply situation is the product of a slow down in exploration and development of several years duration, the causes of which must be thoroughly investigated. We do say that such investigation must include serious consideration of the bearing which area rates fixed in these proceedings will have upon the serious supply situation which has come upon us since the record in this case was closed.

10. It would be tragic in the extreme if the area rates for this all-important South Louisiana Area ultimately prove insufficient to call forth the supplies needed and demanded by the consumers of this Nation. The Commission must, in all good conscience and for the protection of the consumers for whose benefit the Natural Gas Act was passed, be clearly satisfied that the area rates promulgated for the South Louisiana Area will, in fact, call forth the exploration and development activities necessary to provide the necessary proven reserves and cause them to be devoted to interstate commerce. This requirement can only be satisfied by a consideration of current data and current problems. There is some flexibility as to price, but there is no flexibility as to supply. Supply will either be there or it won't when the public demands it.

11. We realize that these proceedings have been pending for a long time and that all parties are anxious for their conclusion. Some, therefore, will say that the review and testing of the area rates promulgated in Opinion 546 should

take place in a subsequent proceeding. We would, however, call attention to the long time involved in both the exploration for and development of gas. Much work must be done and many months must necessarily elapse to reverse the worsening trends of the last three years, and this work, in our opinion, must commence immediately. Time, indeed, is of the essence, and, having in mind the period involved in any new area rate proceeding, the Commission should assure itself now and in these proceedings that its area rates are proper and in the public interest — in short, that they will do the necessary job. We so urge in the belief that such course is essential to the public welfare and to the welfare of the consumers who depend upon us and are looking to us for their increasing demands in Ohio, Pennsylvania, West Virginia and New York. We further believe that it would be improper rate-making practice to reduce rates in these proceedings and then immediately consider possible increases therein. Nothing could be more disruptive or more deterrent to the relief of the supply situation than any such "down and up" price action. Stability of price is immensely important to the encouragement of exploration and development of gas.

12. Consolidated Companies will be prepared to lend all of their efforts to the prompt execution and conclusion of the proposed further hearing. If the Commission does reopen the record for further hearing in these proceedings, we respectfully recommend that it institute an immediate prehearing conference. At such conference, the Consolidated Companies will be prepared to describe the evidence which they will introduce at the further hearing; and, within not more than thirty days following such conference, will be prepared to present their evidence and proceed with the further hearing.

WHEREFOR, Consolidated Companies most respectfully move:

(1) that the Commission reopen the record in these proceedings for the immediate and limited hearing of important facts which (a) have occurred since the closing of the record and (b) relate to a current and prospective unavailability of gas supplies for purchase to meet increases in consumer demands;

(2) that the Commission consolidate with such hearing, to the extent it deem necessary, any gas supply investigation which it may institute and make at Docket RI69-470;

(3) that the Commission cause such hearing to be prosecuted by all parties with the utmost dispatch; and

(4) that, in the rehearing heretofore instituted of Opinion No. 546, the Commission considers such further record in determining what changes, if any, are necessary in the area rates set forth in Opinion No. 546 in order to overcome the shortage of available gas which is now at hand and assure full and adequate supplies for increasing consumer demands.

Respectfully submitted,

CONSOLIDATED GAS SUPPLY CORPORATION
THE EAST OHIO GAS COMPANY
LAKE SHORE PIPE LINE CO.
THE PEOPLES NATURAL GAS COMPANY
THE RIVER GAS COMPANY

By /s/ H. D. BORGER
/s/ C. W. COOPER
/s/ NORMAN A. FLANINGAN

January 31, 1969

Excerpts from "The FPC and Area Pricing: The Need for Re-Examination," an Address by Carl E. Bagge, Vice Chairman, Federal Power Commission, before the Gas Industry Seminar, Oklahoma State University, Stillwater, Oklahoma, May 13, 1969

A speech about area pricing by a member of the Federal Power Commission is always fraught with the danger of a possible disqualifying petition filed either by the producers, on the one hand, or by the New York Commission on the other.

* * *

Having said that, I think that if there ever was a time, now is the propitious moment for the initiation of a public dialogue concerning the efficacy of the existing process of producer regulation.

* * *

Where are we after 15 years of regulation of natural gas producers? Individual company rate proceedings were tried during the period 1954 to 1960. In 1960, after a period of self-examination, the Commission decided that such an approach was not administratively feasible. The Permian Basin proceeding was instituted in 1960 and litigation was finally ended in 1968. And now, a decade after the commencement of Permian, we have taken only a few steps in implementing the area approach of fixing well-head prices for gas sold in interstate commerce.

One thing is evident. That is that the mechanics of the Permian Basin formula, although upheld by the Supreme Court, were but the start of the process of developing an effective, workable method of regulating field prices of natural gas. The Supreme Court itself alluded to the Permian formula as an experiment rather than an inflexible guide to the future. Moreover, the Supreme Court expressed its tolerance of certain imprecisions in Permian

because of the experimental nature of the proceedings. * * * The real test of a regulatory approach is not whether it strictly conforms to one formula or another, but whether it gets the desired results. Does it work? Does it yield ceiling prices that are high enough, but no higher than necessary, to bring forth development of adequate supplies?

It is obvious that conditions are now different from those existing almost a decade ago at the time the several area rate proceedings were begun and the various positions of litigants were set forth on the record of these proceedings. Indeed, conditions have changed markedly during the past year. *The statistics bear evidence of recent dramatic changes in demand, and today, to an extent not yet determined, interstate pipelines have not been able to fill certain incremental requirements.* It is now abundantly clear that we are dealing with a dynamic situation with respect to both supply and demand. And the mechanics of producer regulation in the face of these facts must be capable of effectively responding to this changing situation.

* * * *

Everyone is aware that the Commission has been deluged with pleas from all segments of the gas industry to reassess the gas supply situation. The Commission would not be fulfilling its responsibility if it were to ignore these pleas.

* * *

In recent years, the Commission has solved some of its most vexing and urgent problems by settlement. So it would seem reasonable to inquire whether further efforts at area or even national rate settlement may be the answer for producer regulation—for introducing the essential elements of flexibility and responsiveness into producer regulation at the present time. Knowledge gained through recent experiences should permit all affected parties to arrive at

a rational solution through settlement. *In my opinion, the national interest now requires the full cooperation of all parties in an immediate attempt to reach just and reasonable settlements of pending proceedings.* Every effort should be made to bring this about.

Unanimous agreement by all segments of the gas industry, the FPC's staff, and state regulatory authorities to the specific terms of a settlement may be difficult, if not impossible, to achieve. Is settlement, therefore, impracticable because unanimous concurrence of all parties may not be attained? Needless to say, this poses a legal issue. From the standpoint of regulatory policy, however, it would appear that we should weigh carefully the negative implications of rejecting a proffered settlement which otherwise meets the test of justness and reasonableness against the substantive benefits of requiring unanimity. If rejection would be detrimental in such an instance, then perhaps the settlement should be accepted.

What are the advantages of settlement agreements? State regulatory authorities, distributors, pipeline companies and producers have all pleaded for price stability. It may be, at least in the present stage of producer regulation, that stability can best be obtained by settlement agreements. Producer confidence in the regulatory process could be enhanced, and that is an important factor in stimulating exploration and development of new gas reserves, as well as in maintaining price stability itself. Through such price stability, amounts of capital available for exploratory efforts could be more rationally planned to bring forth required supplies of gas.

In our present national situation, there can be no room for any party's efforts to gain personal, political, or legal victories simply for the sake of victory itself. In fact, it appears to me that it would help if all concerned would

swallow a little pride. Adequate supplies of gas at reasonable prices are indispensable to the public interest. *Too much emphasis has been placed on litigation, posturing, and polemics by all parties during the past decade of producer regulation.* Now is certainly the time for all parties to cooperate in a unified effort to provide protection, without the trappings of unbridled contentiousness, to the gas consumer we are all bound to serve.

Excerpts from "A Look Ahead at Producer Regulation," Remarks Delivered by Commissioner Lawrence J. O'Connor, Jr., before the Petroleum Accounting Conference, Louisiana State University, New Orleans, Louisiana, May 16, 1969

* * *

According to the foregoing data, gas requirements show no signs of abating. The growth in production for the year 1968 was 5.5 percent over 1967. Preliminary figures indicate also that sales of natural gas in 1968 were about 8 percent over the preceding year. On the supply side, however, there have been recent dramatic changes. *Today, for the first time since the boom expansion years after World War II, requests to gas transmission lines to meet new requirements for the year 1969 and subsequent years have, to an extent not yet determined, remained unfilled.* This situation undoubtedly brought about the letter from the American Gas Association to the Federal Power Commission dated December 16, 1968, requesting a review of our policies regarding the pricing of new gas—so that new gas would be priced to elicit sufficient supplies in the future and sufficient commitments to the interstate market. This A.G.A. letter stimulated additional requests that our Southern Louisiana area rate proceeding, issued September 25, 1968, (then in a posture of being subject to a request for rehearing) be reopened for additional evidence with respect to gas supply.

* * *

I have merely touched on some of the factors which could affect the future of the gas industry. Overall, I see a bright future for the gas industry in the years ahead. The resource base seems adequate to support consumption for many years to come, and I have confidence that American scientists will find more effective and economical means to recover this valuable resource. *The real question, of vital*

concern to us, is not the availability and recoverability of the resource, but whether there will be sufficient incentive to locate and produce the gas at costs which permit the gas industry to operate in a competitive market with other fuels.

There is little agreement on how this can best be accomplished. The area rate-making philosophy and procedures of the Commission have been condemned by some and complimented by others. Undoubtedly there is considerable room for improvement in this area. Looking at the current situation objectively, it seems appropriate to level some criticism both at the Commission and the industry itself.

Petitioners for rehearing of the Southern Louisiana Area Rate proceeding have alleged errors of varying degrees of magnitude and seriousness in the initial opinions. Questions have been raised as to the accuracy of cost and other data from which the Commission derives its prices. Much of the data were taken from published statistics and the balance from questionnaires completed by producers. The producers do not operate under a uniform accounting system, and the financial information, whether it comes from published statistics or questionnaires, was subject to individual interpretation of requirements and without independent assurance as to its accuracy. Without getting into the ramifications of cost allocations and other accounting judgments subject to individual interpretation, it seems obvious that costs used in area rate determinations must be made more reliable if equity to all parties is to prevail.

I do not foresee the abandonment of the area rate concept for producers in the near future. I do think, however, that it should be the policy of the FPC to develop a regulatory scheme whereby the interstate market will be able to effectively compete for all new gas supplies wherever located. One of these ways may well be by permitting a higher price to the domestic producers of favorably located

reserves of gas. I approve of the area rate principle as presently envisioned as long as it does not ignore the fact that the wellhead comparable gas supplies located nearer the major consuming areas are worth more to the distributor than gas in the most promising exploration areas (offshore Louisiana, Canada or Alaska) which has to be transported over long distances. Again, the period of the late 1940's was one in which the consumers of gas had little price protection while the period of the 1960's was one in which producers similarly had little protection because of the issuance of temporary certificates and the area rate proceedings.

One of the major criticisms leveled against area rate making is that there is insufficient incentive for uncovering new gas supplies. While regulation per se is blamed for this condition, and less regulation is the proposed remedy, I think that the industry is realistic enough to realize that the elimination of regulation is not imminent. *The best incentive, of course, is a price which is adequate to support the search for new discoveries.* The issue of price will be debated as long as there is regulation. The Commission, of course, gives full consideration to this matter in setting rates and it considers the established prices to be adequate to support future discoveries. Price, however, is only part of the incentive picture. An equally important consideration is stability of the existing price structure. It may be necessary, or at least useful, for legislation at the federal level to provide assurance that once sales of gas at a given rate in interstate commerce are approved by the FPC no reduction in this rate could be made by future Commissions. This step may be necessary to assure commitments for future development. In any event, both parties in the future should be protected by contracts, related to the area prices, that include prices subject to known and definitive changes which will be firm and binding on all parties.

Excerpts from an Address by Commissioner Albert B. Brooke, Jr., Federal Power Commission, before the Tennessee Gas Association Annual Convention, Gatlinburg, Tennessee, May 22, 1969

* * *

The explosive growth and expansion of the natural gas industry is a remarkable chapter in American energy folklore. Producers, pipelines and distributors have combined to bring this source of energy across great distances to heat homes, cook meals, fuel industries. It is clean, economical, convenient—and getting scarce.

To my inexperienced eye, I am deeply concerned by the present gas supply situation, not only as a point of departure to meet added demands but, more importantly, from the point of view of supply adequacy and sufficiency to supply traditional markets.

The matter of gas supply is one of critical importance to the nation at this time. Apparently, we do have ample reserves in the ground, but they are not being discovered or produced at an adequate rate. Pipelines are deeply concerned with the present situation, and we at the Commission are concerned. We recently had an informal meeting with several of the major pipelines to discuss the situation and are meeting with the producers tomorrow. These informal meetings, and hopefully additional conferences with other interested groups, constitute the first step in effecting what I hope will be a new and more efficient method of producer regulation.

I don't want to create the impression that I am fully knowledgeable with the ratemaking process as it relates to producers. I am not, but *what I do understand is a source of more concern than contentment for two major reasons—the methodology applied to ratemaking and the time involved in the decision-making process.*

The basic approach to ratemaking seems to be that if a producer recovers his cost plus an adequate rate of return we will be assured of an adequate natural gas supply. Sound enough basically, yes, but, I fear, lacking in performance.

As the procedure has evolved, we get quite a bit concerned with nitpicking various minor aspects of the methods employed and forget the forest for the trees. Even with this concentration on method, the tortuous allocation methods the basic data must follow before a final result is distilled leaves me no little discomfort.

In voicing my skepticism of the entire procedure, I am comforted by the fact that Commissioners more experienced than I, while accepting the results reached, have pointed out serious questions about the methodology and have called for a simplification of producer ratemaking more responsive to the dynamics of the industry.

I couldn't agree more. We begin with a staggering volume of data. Volume alone is prohibitive. In addition, the underlying reliability is questionable because we're using data for different purposes than originally prepared, and there is no uniform system of accounts applicable to producers.

Then the data are subjected to the grind of allocation methods before a final decision is made and a rate or rates established. The entire process is probably good enough legally, but a better, simpler and more practical method should be a matter of top priority.

Based on the data submitted in a given rate case, I presume that one could probably manufacture any number of prices within a wide range under current methods, depending on one's predilections, hunches or body juices.

The volume of data, statistics, evidence and testimony that make up a rate case is tremendous, and wading through

the record takes time, too much time. Even if the process was certain, the time required to use it dictates a change. The fairness of any price, determined by even the most enlightened and conscientious regulation, is rendered obsolete if the passage of time breeds changes of significant influence in an industry which deals constantly with the dynamics of change.

During the past decade, we have seen an unending fluctuation, primarily upward, of several factors which affect price. Increasing plant investment, the high cost of capital, inflation, higher operating costs, to name a few, are items of proper concern to an industry where significant plant investment is required to yield a dollar in revenue.

I think it is reasonable to expect that even the most cumbersome of processes can be expedited somewhat or modified to be more in step with the moment, but this does not improve the fundamental questionability of the process itself.

I recognize it's much easier for a newcomer, with the benefit of hindsight, to cast questions about decisions made during difficult periods years ago. At the same time, it seems to me we must not be prisoners of the past, but should profit from it. And not be content to rely on the "tried and true" even where a procedure may be refined, through repetition, to the point that it is administratively manageable. *We might devise the fairest, the justest and most reasonable rates, but if there is no gas, it would have been a rather futile gesture.*

Excerpts from Remarks of Albert B. Brooke, Jr., Member Federal Power Commission, before the Independent Natural Gas Association of America, Colorado Springs, Colorado, September 9, 1969

Some of the prime problems facing the natural gas industry within the next several years are already apparent and will require major policy decisions by the Commission, the industry and different levels of government, probably within the time frame of the immediate future.

The most obvious, the most urgent and the most pressing problem we're facing today is that of natural gas supply.

There are two sides to the gas supply coin which I regard as crucial. One involves encouragement and incentive to the producer to undertake discovery programs to add new reserves to our declining natural gas inventories. The second involves the ability of the interstate transmission companies to attract the financing, primarily debt capital, necessary to expand pipeline capacities to meet future market demands by both new and old customers.

The ability to deliver is, to me, just as important as the ability to produce, and unless natural gas can be produced and delivered in the volumes demanded by the market, I'm afraid that we can anticipate some limitations being placed on the markets to be served.

Frankly, the next five years may well prove to be the crucial years. It is undisputed that the demand for natural gas will continue to grow rapidly. Disagreement comes only to the degree, but a fair guess would fall in the five to seven percent bracket.

Assuming a continuation of the current reserves-to-production trend, it can reasonably be presumed that the R/P ratio will drop from its present 14.5-year ratio to slightly below 11 between now and 1974, *I seriously doubt*

that the most intensive of drilling programs would enable us to prevent further deterioration in the total reserves situation.

I don't know of any other issue that has occupied more of the Commission's time since I became a Commissioner than natural gas supply. We have carefully evaluated the implications of supply in formal cases and we have discussed it in conference with the major industry groups.

The May report of the American Gas Association pointed up the growing seriousness of supply scarcity with data showing that in 1968, for the first time in nearly 25 years, our annual domestic production exceeded discoveries. A particular sobering statistic was that reserve additions had gone from a surplus of 3.5 trillion cubic feet over production in 1967 to a decrease of 5.5 trillion cubic feet in 1968—a difference of 9 trillion cubic feet.

The domestic natural gas industry is today caught up in a whirlwind of circumstances, or happenstances, which have brought a focal point of crisis to a vital national energy source.

I daresay that if anyone had been instructed to sit down a couple of years ago and draft a plot of scenario calculated to inflict maximum adversity on the industry he couldn't have done better than the natural convergence of many influential factors which affect the production and transmission of natural gas.

I am, of course, referring to the persistence of high inflation, tight money and the hight cost of capital; rising labor costs, higher expenses for supplies, increasing construction costs; the still unsettled future of investment tax credit, accelerated depreciation, depletion allowance, intangible drilling costs, and the income tax surcharge; increasing intrastate competition for new discoveries; potential changes in the oil import program, and the accommodation

of those social values involving aesthetics, the environment, pollution control, et cetera.

Under normal circumstances of the past, sufficient incentive was available to attract investment capital for exploration and development. In the light of present uncertainties of many of the essential ingredients which normally would make the risk worth a gamble, we are experiencing a slowdown of effort, particularly in wildcat ventures whose discoveries of new gas fields and new reservoirs are highly important to our natural gas inventories.

I think it is unquestionably certain that eliminating or modifying any of the incentive package in the tax field, for instance, will lead to higher consumer prices or more restricted supplies. Other cost pressures trend in the same direction. Many states, for instance, have either passed or are considering air pollution laws predicated on the use of natural gas to replace present fuels and to supply all new fuel requirements. *Under current circumstances, there is not enough gas available to supply air pollution needs.*

To acquire sufficient gas to replace all present fuels in areas with significant air pollution would necessitate a tremendous increase in exploration activity. This would undoubtedly generate an increase in the producers' price of gas. Such an approach would make the added cost to the consumer, both industrial and domestic, so high as to possibly become prohibitive.

Since this is not a rational solution, the Commission may well find itself called upon to make determinations as to which areas will get the gas which can be developed at a cost the consumer can afford to pay. I can't for the life of me see how the Commission will determine whether air pollution is worse in New York City, than it is in Pittsburgh, Chicago or Los Angeles, and that New York City is entitled to the cheaper gas.

Excerpts from "Gas Supply and the Role of the Independent Producer," Remarks Delivered by Commissioner Lawrence J. O'Connor, Jr., Federal Power Commission before the Pacific Coast Gas Association, 76th Annual Convention, San Diego, California, September 10, 1969

* * *

With all these complexities, it is still *necessary that the Commission provide a price that assures an adequate gas supply. Protection of the consumer is most effective when there is an adequate supply—and the alternates to domestic natural gas will probably cost the consumer considerably more.*

The need for adequate supply of gas is vital and of major concern to the FPC. The Commission as a body has met with each of the major industry groups (producers, pipelines and distributors) to receive their views. As a result, all natural gas cases coming before the Commission have been carefully scrutinized for gas supply implications. I believe it would be a fair statement to say that no other single issue has received as much of the Commission's attention in recent months as this one.

* * *

The magnitude of the problem has been further illustrated by a composite estimate made by eleven major transmission companies which shows that the increased market demand for the 1970-71 heating season indicates a need for new gas in excess of two trillion cubic feet for which no producer supply contracts have yet been executed.

Shocking though these figures may be, I hasten to add I am not a prophet of doom. I think the industry does have a supply problem and a potentially serious one. I also think that an understanding of the mutual problem facing the producing, transporting and distributing segments of the industry is essential for only through a unified effort by the industry can the extent of the supply problem be meaningfully defined, analyzed and overcome.

Excerpts from "Current Regulatory Developments Affecting the Natural Gas Industry," Remarks of John N. Nassikas, Chairman, Federal Power Commission, before the Tenth Financial Forum of the American Gas Association, Scottsdale, Arizona, October 17, 1969

Critical issues confront the gas industry. Resolution of these issues demands enlightened regulation on a priority basis and the cooperation of industry and the financial community in seeking realistic programs to turn around present trends. A regulatory climate designed to induce dynamic growth to meet energy demands in a society of abundance must supplant a regulatory concept of *status quo* in a society of scarcity [speaker's emphasis]. It is high time that we restored the balance between investor and consumer interests to underwrite just and reasonable rates for the consumers of natural gas consistent with the maintenance of adequate service in the public interest, recognizing that investors are entitled to a just and reasonable return on their invested capital committed to the gas industry.

* * *

The ability of the gas industry to raise capital to install the necessary facilities to provide adequate service at a reasonable cost is directly related to the solution of the problem of an adequate gas supply. If there is uncertainty of gas supply to meet demand, then the growth of the industry is in jeopardy and the cost of money will increase to the extent that the risk of capital commitment and return is increased. The parameters of the supply problem have been defined by the National Supply and Demand Estimates Section of the Bureau of Natural Gas in "A Staff Report on National Gas Supply and Demand" released by the Commission on October 1, 1969. While the Commission can make no definitive findings or draw any

ultimate conclusion until an evidentiary record in a regulatory proceeding has been fully developed, the Staff Report has made a distinct contribution to public understanding of the gas supply and demand relationship. *The Report summarizes mounting evidence that the nation's natural gas supply is diminishing to critical levels in relation to demand and calls for a major new government-industry program to assure continued growth of gas reserves during the next decade.* The Report examines the full range of natural gas supply and demand relationships including current and future gas requirements, proven reserves, the undeveloped natural gas resource base, the level of exploration and reserve additions, imports and technological developments leading to improved recovery methods, and substitute fuels. The staff intended the Report to provide a factual base for future government and industry policy decisions which will assure the full and timely utilization of the nation's remaining natural gas resources and facilitate the transition of natural gas markets to newly developed substitute fuels and imported fuels.

The Staff Report concluded in part as follows:

> "1. The national reserves to production (R/P) ratio (excluding Alaska) will drop from the current 14.6 level to 10.2 by the end of 1973. Even a substantial improvement in reserve additions during the 1969-1973 period above that experienced during the past five years will not prevent the R/P ratio from dropping to about 11 in 1973. Under no foreseeable circumstances will it be possible to hold the R/P ratio at its present level. Even under a greatly accelerated exploration program there is no single producing area, such as South Louisiana for example, which has sufficient potential for the development of new reserves at the

timing and magnitude required to halt the decline in the national R/P ratio . . . ."

The projection of decline in the R/P ratio assumes that annual average reserve additions for the next five years will continue at the same level as for the last five years and the rate of increase in annual production for the next five years will be similar to that experienced during the past five years. The decline in reserves must be halted or the availability of supplemental sources of gas must be increased; the constrain of an inadequate gas supply on industry growth and the national economy is unacceptable to me.

Staff projections of U.S. natural gas consumption over the next five years show the average annual growth rate of 6.0%—the same as experienced during the past five years. Although this would seem to be a relatively high growth rate, experience has demonstrated that forecasts of natural gas requirements are almost invariably exceeded by actual consumption within a few years. Thus, the staff demand projection could prove to be conservative, provided there is an ample supply of gas to satisfy demand.

It is my understanding that the updated forecasts of the Future Requirements Committee (of the Gas Industry Committee)[3] will be released before the end of this month. I am looking forward to receiving the current results of this Committee's efforts. Such cooperative efforts on the part of the various segments of the natural gas industry are commendable and the timely and accurate forecasting of future natural gas requirements will define the practical limits of gas supply to meet demand. Accurate forecasts

3. The Future Requirements Committee works under the direction of the Future Requirements Agency of the University of Denver and the Denver Research Institute.

of natural gas requirements are a necessary predicate to realistic regulatory decisions to assure adequate exploration, discovery and development of gas reserves with appropriate incentives. *If the present area rate structure proves to be inadequate to induce the requisite exploration, discovery and production of gas, or if other regulatory restrictions stifle industry's incentive or ability to attract or invest the necessary capital to meet energy demands, then we must take such regulatory action, after hearing, as may be required to protect the public interest.*

The Staff Report indicates that the undiscovered natural gas resources of the contiguous states are estimated by various experts to be from 2½ to 5 times the present proven reserve inventory of 282 trillion cubic feet. The problem, of course, is to convert the natural gas—by exploration and development—from the undiscovered resource category to the proven reserve category at the pace required to meet increasing demands and under economic conditions which will enable natural gas to retain its competitive position in the energy mix. This problem is central to our regulatory approach to supply adequacy.

Regulatory flexibility will be necessary to maintain an appropriate balance between supply and demand. I intend to see that such flexibility is demonstrated as circumstances require. *If past regulatory practices have contributed to the supply problem, we should not hesitate to critically re-examine these practices with a view to reversing undesirable trends.*

The Supreme Court of the United States in the *Permian Basin Area Rate cases* (20 L Ed. 2d 312 at p. 339) recognized that ratemaking is a process of continual review and that, in effect, there is no rate for all seasons, in terms as follows:

"Moreover, area regulation of producer prices is avowedly still experimental in its terms and uncertain in its ultimate consequences; it is entirely possible that the Commission may later find that its area rate structure for the Permian Basin requires significant modification."

The Supreme Court also observed:

"Finally, we must emphasize that we understand the present proceeding to be merely the first of many steps toward a more expeditious and effective system of regulation." *(Id.* Footnote 37 at p. 339)

Excerpts from "Gas Supply: A Regulatory Response," an Address by Carl E. Bagge, Vice Chairman, Federal Power Commission before the Institute of Gas Technology, Symposium on Gas Supply at The Institute of Gas Technology, Chicago, Illinois, October 30, 1969

The Institute of Gas Technology should be commended for sponsoring this most timely symposium on gas supply. It comes at a time when the subject is receiving increased national attention not only within the gas industry, but by state and federal regulators, government policy makers, the Congress, and the public.

Just last Friday, the Federal Power Commission heard oral argument in AR69-1, the Offshore South Louisiana Area Rate proceedings, which focused, among other things, on the nature and scope of the problem of gas supply. Tomorrow, we will hear oral argument in AR64-1 and AR64-2, the Hugoton-Anadarko Area Rate proceedings, which, in part, involve the same issue. On November 12, Senator Moss, Chairman of the Senate Subcommittee on Minerals, Materials and Fuels of the Interior Committee, will commence hearings on this subject. Earlier this month, the Federal Power Commission authorized the release of a Staff Report on National Gas Supply and Demand; and since that time the Commission has issued three major documents, a policy statement, a decision, and a proposed rulemaking proceeding, each of which deals directly with this problem. In addition, gas supply has been the principal subject of attention at the recent national meetings of the National Association of Regulatory Utility Commissioners, the Independent Natural Gas Association of America, and the American Gas Association. The recent reports of the Potential Gas Committee and the Future Gas Requirements Committee are illuminating this issue. Several of my colleagues have addressed themselves to this subject in numer-

ous recent speeches, as have industry leaders and other government officials.

* * *

The concern for an adequate supply of gas even precedes the A. D. Little study and is intertwined with the entire fabric of producer regulation since *Phillips*. The Commission regarded its venture into area ratemaking as experimental and subject to the "practical test" of whether it operated in the real world by bringing forth additional supplies. The Supreme Court in upholding *Permian* agreed and held that the cost-based *Permian* methodology was not an inflexible guide to the future. *This, in essence, is the issue before us now—whether the existing level of rates produced by the existing methodology of producer regulation is functionally adequate and functionally effective to elicit the essential gas supplies.*

* * *

There are some who have even contended that the reserve data supplied by the industry are not accurate and that the supposedly impending gas shortage is being deliberately manipulated or exaggerated by the producers to justify wellhead gas price increases to the public and to the regulators. This theory holds that only the producers know the real extent of their reserves and that in due time, when the price is right, ample supplies of gas will be released.

Yet the warning signals continue to flash and the ranks of the gas shortage spokesmen continue to grow. A number of pipeline companies and distributors have informed the Commission that they are unable to contract for new gas supplies, and in one case a major pipeline company cited this precise reason for attempting to withdraw part of an expansion program for which certificate authority

was being sought. One might reasonably assume, therefore, on the basis of this preliminary evidence, that there is a short-range gas supply problem, either real or contrived; and I welcome this panel discussion today as one means of perceiving and understanding our problem more clearly.

The latest warning signal is the staff report by the Bureau of Natural Gas issued a few weeks ago which predicts that if present trends continue, "only a few years remain before demand will outrun supply." This report does not necessarily reflect the views of the Commission. However, the report struck me as particularly useful in that it illuminates some of the detailed components of the gas supply problem which have been overlooked in other studies.

Excerpts from "Regulation In The Public Interest," Remarks of John N. Nassikas, Chairman, Federal Power Commission before the American Petroleum Institute, Houston, Texas, November 11, 1969

I have not attempted to estimate the extent of the capital commitment required by the producing segment of the industry to develop the necessary reserves and to produce the gas required to meet the growing demand for gas. The problem of an adequate gas supply to meet consumer demand is partially the result of lack of timely capital commitment by producers and pipeline companies. The question is how to induce the requisite capital investment to yield the required amount of gas at a reasonable cost to the consumer.

We start with the *Permian Basin Area Rate Cases* decided by the Commission in 1965, prescribing maximum rates for sales in interstate commerce of natural gas produced in the Permian Basin. 34 FPC 159, 34 FPC 1068. On May 1, 1968, the Supreme Court of the United States affirmed the Commission's orders. 20 L. Ed. 2d 312.

The Supreme Court enunciated, among others, the following significant ratemaking principles:

> Maximum rates determined in conformity with the Natural Gas Act, and intended to balance the investor and the consumer interests are constitutionally permissible, citing *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 at 603.
>
> "Moreover, area regulation of producer prices is avowedly still experimental in its terms and uncertain in its ultimate consequences: it is entirely possible that the Commission may later find that its area rate structure for the Permian Basin requires significant modification." 2d at p. 339.

"Finally, we must emphasize that we understand the present proceeding to be merely the first of many steps toward a more expeditious and effective system of regulation." *Id.*, Footnote 37 at p. 339.

Again, at p. 367, "We do not suggest that the Commission need not continuously evaluate the revenue and other consequences of its area rate structures."

If industry cannot within reasonable limits measure the expected return on an investment in exploration and development for natural gas, the prescription of the level of just and reasonable maximum rates to induce the necessary level of capital commitment becomes increasingly difficult. The empirical approach of establishing rates and then looking backward to see if they produced the right result cannot be seriously advanced as a reasonable response to the problem of prescribing producer rates. Rate-making is prospective and we are in the business of intelligent forecasting based on a survey of known facts. We cannot afford the luxury of second-guessing by trial and error in this sophisticated era. De-regulation—and reversion to pre-1954 free competition to establish producer rates—which I do not advocate—would be more realistic than prescription of rates unrelated to any standard under the guise of regulation.[3]

3. "The circumstances that led ultimately to these proceedings should first be recalled. The Commission's authority to regulate interstate sales of natural gas is derived entirely from the Natural Gas Act of 1938, 52 Stat. 821. The Act's provisions do not specifically extend to producers or to wellhead sales of natural gas, and the Commission declined until 1954 to regulate sales by independent producers to interstate pipelines. Its efforts to regulate such sales began only after this Court held in 1954 that independent producers are 'natural gas compan[ies]' within the meaning of § 2(6) of the Act, 15 USC § 717a(6): *Phillips Petroleum Co. v. Wisconsin*, 347 US 672, 98 L Ed 1035, 74 S Ct 794. The Commission has since labored with obvious difficulty to regulate a diverse and growing industry under the terms of an illsuited statute." 20 L Ed. 2d at pp. 329-330.

Congress has entrusted the regulation of the natural gas industry to the informed judgment of the Commission. *The Commission intends to exercise its judgment in determining any ultimate rate structure only after evidence of supply-demand-price relationships has been offered in a rate proceeding and fully examined after hearing. We must have the requisite evidentiary foundation for findings of fact upon which our orders are buttressed.*

* * * * * *

There are increasing warnings of a diminishing gas supply in relation to projected demand. If present trends are not reversed, the natural gas industry will not experience the dynamic growth forecast by demand premised on a reliable supply of gas. I will outline briefly the scope of the problem as defined by the National Supply and Demand Estimates Section of the Bureau of Natural Gas in "A Staff Report on National Gas Supply and Demand" released by the Commission on October 1, 1969.

The Staff Report concluded that "the national reserves to production (R/P) ratio (excluding Alaska) will drop from the current 14.6 level to 10.2 by the end of 1973," and "even under a greatly accelerated exploration program there is no single producing area, such as South Louisiana, for example, which has sufficient potential for the development of new reserves at the timing and magnitude required to halt the decline in the national R/P ratio." New reserve additions have remained relatively static over the past five years, except for 1968 when the finding to production (F/P) ratio dropped to 0.6, i.e., production exceeded finding of new reserves by 40 percent. The Staff Report also points out that natural gas resources of the contiguous states are estimated by various experts to be from 2½ to 5 times the present proven reserve inventory of 282

trillion cubic feet. My regulatory approach to supply adequacy recognizes the crucial problem of converting natural gas—by exploration and development—from the undiscovered resource category to the proven reserve category in time to meet increasing demands and at a price which will maintain the competitive position of natural gas in our energy economy. The basic objective of the Natural Gas Act and of the regulatory process in administering that Act is to assure that "natural gas shall be sold in interstate commerce for resale for ultimate public consumption for domestic, commercial, industrial, or any other use, at the lowest possible reasonable rate consistent with the maintenance of adequate service in the public interest." *CATCO*, 360 U.S. 378. Adequacy of gas supply to meet consumer demands is an indispensable part of "adequate service in the public interest."

Price is not the sole determinant of an assured domestic supply of gas. Certainty of regulation upon which to base long range business decisions is also important, as is our capacity for effective and timely administrative decision. We recognize that we are . . . "not bound to the service of any single regulatory formula . . ." and we may make such "pragmatic adjustments" as may be called for by particular circumstance. *Permian*, at p. 342. See also *FPC v. Natural Gas Pipeline Co.*, 315 US 575, at 586.

Excerpts from Natural Gas Supply Study, Thursday, November 13, 1969, U.S. Senate, Subcommittee on Minerals, Materials, and Fuels of the Committee on Interior and Insular Affairs.

Statement of Hon. John N. Nassikas, Chairman, Federal Power Commission; accompanied by Carl E. Bagge, Vice Chairman; Commissioners Lawrence J. O'Connor, Jr., John A. Carver, Jr., and Albert B. Brooke, Jr.

Mr. NASSIKAS. I have Commissioner Brooke and Commissioner Bagge on my left, Commissioner John Carver on my far right, and to my immediate right, Commissioner Lawrence O'Connor.

We appreciate, indeed, the opportunity to appear before you to discuss the adequacy of the current and prospective natural gas supply, a subject which has been receiving increasing attention in recent months.

We at the Federal Power Commission appreciate your concern and interest in the matter. We believe that this subject deserves intensive examination not only by all segments of the natural gas industry—producers, pipeline companies and distribution companies—but also by the legislative and executive branches of the Government, the regulatory community and the public at large.

In the letter of November 4, 1969, to me, from Senator Jackson, it was indicated "that the sole purpose of this hearing, is to ascertain the situation with respect to supplies of natural gas, and to try to formulate what actions can be taken legislatively or administratively to avert any shortage which may be threatened."

It was further requested that the Commission make clear to the committee "just how the gas industry is regulated, and how statistics and estimates on extent of reserves are determined."

My testimony is directed to reply precisely to this request and in addition to amplify the scope of the supply problem

in terms of the regulatory process. Based on discernible trends of supply and demand, it is clear that there may be a developing natural gas shortage in the United States which may be minimized by a coordinated approach to the resolution of the problem by the Federal Power Commission, the Department of the Interior, the Congress, State regulatory agencies, the natural gas transmission and distribution companies, as well as the producer segment of the oil and gas industry.

On a short-range basis, information available to us indicates that interstate pipeline companies in various sections of the United States may be unable to meet all applications of local distribution companies for new demands.

Over the longer term, if present annual incremental growth of demand continues and the additions to supply do not correspondingly increase and if we are unable to supplement the domestic supply of gas from other sources—a subject to be more fully developed later in my testimony—it is clear that total gas energy demands will not be met by the natural gas industry.

It is our intention as a regulatory agency to avert any shortage of gas to meet the growing demand insofar as may be feasible. We are not interested in resolving resource problems by rationing or a philosophy of scarcity, but rather in resolving problems within the context of an abundant society.

We feel this approach will be most productive. It not only contributes to an improvement in our standard of living and assists gas consumers to receive adequate service at a reasonable cost, but it also recognizes that the interest of the investor must be served in a balanced resolution of the problem in the public interest.

The natural gas industry provides about one-third of the total U.S. energy consumption and is ranked as the second

largest source of our primary energy needs, surpassed only by crude petroleum products, which in turn provide over 40-percent of total energy consumption.[1]

The natural gas and oil industries account for 75 percent of our energy consumption in the United States and are a fundamental, indispensable part of our 20th century industrial civilization.

We must note at the outset that, in order to meet short-term energy demands, natural gas is limited by existing pipeline technology, whereas oil can be effectively transported on a worldwide basis within the limits of its existing technology. This distinction is important because it means short-term energy needs must be met primarily from our domestic natural gas resources in the lower 48 States.

We start with this proposition to define the problem so that we may offer pragmatic solutions for this generation of energy users and at the same time to establish the foundation for providing energy resources to meet the burgeoning incremental demands of future generations. We are also mindful that our regulatory policies must be effective, workable, and timely.

Make no mistake about it, gentlemen, our quality of life—that is, our modern standard of living—is dependent on the continued financial and technological integrity of the natural gas and oil industries.

One further observation: A gas supply problem is developing because demand is growing faster than was forecast by both Government and industry. Because leadtimes between the exploration for gas and its conversion to pipeline flow are approximately 5 to 6 years, there are no easy or immediate means to close the gap between supply

1. The Department of the Interior News Release: Bureau of Mines, March 9, 1969.

and demand. Development of reserves takes less time but is dependent upon the new discoveries obtained by exploration.

A supply crisis of national magnitude may be averted over the long term if coordinated remedial measures are adopted by all concerned.

As will be developed in later portions of my testimony, the perimeter of the supply problem in relation to demand and the extent of the stimuli required under regulatory formulas will be exhaustively reviewed and explored in various proceedings currently pending before the Commission.

Because we are charged with judicial responsibilities in the administration of the Natural Gas Act in the public interest, we cannot perforce arrive at any preliminary conclusions or adjudications of controverted issues but must await the development of record evidence by testimony, exhibits, and documentation in hearings before arriving at a decision.

Congress entrusted the administration of the Natural Gas Act to our informed judgment. We intend to execute this trust faithfully within the ambit of appropriate legal proceedings; but we believe we can expedite the process to meet the critical problem.

The extraordinary growth and demand for natural gas is evidenced by the fact that since the late 1940's, the industry tripled the number of customers served, sales have increased by 400 percent, and there are 40 million natural gas customers today.

The American Gas Association estimates that the gross plant investment of the distribution and pipeline segments of the industry increased from $20.7 billion in 1960 to $35.6 billion in 1968, an increase of 72 percent.

Since 1960, gas utilities have added about 1 million residential customers a year and by the end of the next decade

the industry expects to serve about 52 million customers, a projected increase of 30 percent.

Total sales of natural gas increased from 92.9 billion therms in 1960 to 145 billion therms in 1968, up 56 percent in 8 years. The natural gas industry ranks as the Nation's sixth largest in terms of gross investment. The new plant added by the pipeline sector of the industry alone totaled nearly $1.5 billion in 1968.

Gas supply is as essential to the natural gas pipeline industry as generating and transmission capability is to the electric utility industry. An increasing supply of gas to meet incremental demand is essential for dynamic growth. Maintenance of the status quo is not enough. The natural gas industry is capital intensive, requiring an estimated investment of an additional $60 billion between now and 1990.

Unreliability in service to the consumer by a public utility creates uncertainty, with a possible restraining impact upon the ability of the industry to raise capital at a reasonable cost of money so as to provide adequate service at just and reasonable rates to the consumer.

While sophisticated financial considerations and analyses are required to determine the level of earnings needed to meet growth requirements, it is axiomatic that in a wasting asset industry, like the natural gas industry, the absence of an assured supply not only impairs the raising of new capital but also makes it extremely difficult for pipelines to maintain service to existing customers through the large capital plant which is already in place.

We recognize that an adequate supply is a prerequisite to utilize the economies of scale afforded by pipeline technology which enables these companies to deliver natural gas to the consumer at prices competitive with other fuels.

Thus, the American Gas Association reports that despite the fact that the Consumer Price Index has risen 16.3 percent over the period from 1961-68, the average price of natural gas to all classes of consumers throughout the country has remained virtually constant since 1961.

The adequacy of natural gas supply also has substantial indirect effects. The electric utility industry, the largest industry in the United States from the standpoint of capital investment, depends on natural gas to supply a considerable portion of its generating fuel and accounted for approximately 16 percent of total U.S. natural gas consumption in 1968.

Incidentally, that figure of capital investment in the electric utility industry is around $80 to $85 billion today, and it is expected to go up to $350 billion by 1990.

Appendix A discusses in more detail the interrelationship between these two industries. I don't intend to read any part of appendix A or discuss it at this time.

* * *

In order to assess the required level of exploration it is necessary to first have an accurate forecast of future market requirements for natural gas.

However, the reliability of past estimates for future gas requirements is questionable. Invariably, such estimates have been surpassed by actual gas consumption. The demand for natural gas in the 1960's has been significantly underestimated by both the industry and the Government. Results to date indicate that greater efforts are needed to improve forecasting techniques.

Tables 1 and 2, attached to my statement, set out various estimates of projected demand for natural gas in the past, and the dates the estimates were made, and actual consumption. If we select 1 year, say 1975, we see that the

estimated requirements for that 1 year made by the same committee, increased 50 percent from December 1964 to September 1969. Even more startling is the fact that when the requirement estimates of 1964 and 1969 are accumulated for the 10 year period 1970 to 1980, the difference in projected gas requirements amounts to 103 billion MCF, or about the equivalent of 5 years of gas reserve additions.

In order to put into perspective the magnitude of those demand projections, let us consider the most recent estimate of natural gas needs developed by the Future Requirements Committee in their September 1969 publication, which will be distributed to the committee, if it has not already been done.[3]

The committee estimated that annual requirements for gas in the United States will increase from 21.5 billion MCF in 1968 to 46.7 billion MCF by 1990, or at an annual compound growth rate of 3.6 percent.

Using these estimates, our staff estimates that 800 billion MCF of new reserves would need to be added between 1968 and 1990 if requirements are to be met solely by domestic production while maintaining a reserves to production (R/P) ratio of 10.

Table 3 demonstrates in column 4 the new annual supplies of natural gas required to be added to maintain the R/P ratio at 10 and the findings to production (F/P) ratio in the range of 1.3. (The significance of these ratios will be explained later.)

3. The Future Requirements Committee is sponsored by the Future Requirements Agency, Denver Research Institute, University of Denver and is composed of members from the gas producing pipeline, and distribution industry, observers from State and Federal regulatory bodies, American Gas Association, American Petroleum Institute, Independent Natural Gas Association of America and the National Association of Railroad and Utility Commissioners.

This estimate is considerably more than the approximately 630 billion MCF of proved reserves which have been discovered in the contiguous states up to the present time.

Given the magnitude of our needs, the obvious question is whether we have the natural gas reserves to meet our needs. The Potential Gas Committee[4] estimates our undiscovered potential gas reserves at 1,227 billion MCF, 427 billion MCF of this undiscovered potential is attributed to Alaska, leaving 800 billion MCF of undiscovered potential reserves in the contiguous 48 States.

The committee's estimate of the undiscovered potential supply of natural gas in the United States (including Alaska) contains three categories as follows:

ESTIMATED POTENTIAL SUPPLY OF NATURAL GAS

Billion MCF at 14.73 p.s.i.a. and 60° F.

Probable	260
Possible	335
Speculative	632
Total	1,227

The committee emphasizes "that the foregoing estimate represents the potential supply to be found by test wells which can be expected to be drilled in the future under these assumed conditions: (1) adequate but reasonable prices, and (2) normal improvements in technology. In no way do these estimates reflect the time schedule at which the future gas supply will be discovered and produced."

4. The Potential Gas Committee is sponsored by the Potential Gas Agency, Mineral Resources Institute, Colorado School of Mines and is composed of members from the gas producing, pipeline, and distribution industry, observers from State and Federal regulatory bodies, American Gas Association, American Petroleum Institute, Independent Natural Gas Association of America and National Association of Railroad and Utility Commissioners.

For a detailed explanation of the three categories of potential reserves and how they are derived, please see appendix B. I am not going to discuss that in detail. This is complex, technical, and appendix B explains in detail how that committee arrives at its estimate.

In comparison, the U.S. Geological Survey of the Department of the Interior estimates our undiscovered potential gas reserves at 2,400 billion MCF. Approximately 550 billion MCF of this amount is attributed to Alaska, leaving about 1,550 billion MCF for the contiguous States.[5]

Regardless of which estimate is the more accurate, it is apparent that our reserves in the ground are adequate to meet the required cumulative reserve addition of 800 billion MCF, if reserves could be equated with production.

The crucial question is the rate at which the industry will develop these reserves and whether we can fully utilize our natural gas resource base while maintaining competitive prices. With the data and techniques presently available to us, we cannot reliably forecast the rate at which these resources will be used, and the economic conditions that will elicit the required supply.

We have not yet developed a supply curve that will show us the relationship between the price level and discovery of reserves.

I would like to add that we must find more precise methods of forecasting supply in response to price. *A reliable supply curve is the first element of intelligent prophecy.*

For purposes of assessing the existing adequacy of the available supply, the industry uses two ratios. One is the

5. These potential estimates do not include present proven reserves of 282 billion M. c.f. for the contiguous States. As a matter of interest, approximately 346 billion MCF of natural gas has been produced in the lower 48 States since statistics for the gas industry have been compiled.

ratio of proved natural gas reserves to net gas production (the R/P ratio)[6] and the other is the average annual finding to net production ratio (F/P).[7] Please refer to table 4.

Both of these ratios must be interpreted in light of the supply of natural gas which had been built up during the decades of the 1940's and fifties primarily as a byproduct of the search for oil. This inventory served as the basis for the expansion of the interstate natural gas pipeline systems into all areas of the country from supply sources located primarily in Texas, Louisiana, Oklahoma, New Mexico, and Kansas, which contain over 90 percent of the Nation's proved natural gas reserves.

As recently as 1962, the reserve inventory was still about 20 times as large as annual production. By 1968 the R/P ratio excluding reserves in Alaska had declined to 14.6 even though new gas findings (annual reserve additions) exceeded annual production every year until 1968.

This is set forth in table 4 and chart 1.

The R/P ratio declined because demand has been increasing faster than the new reserve findings. Specifically, net annual production rose from 4.9 billion MCF in 1946 to 19.3 billion MCF in 1968, an increase of almost 400 percent, whereas proved reserves increased only 77 percent during the same period. Production to meet demand was over five times as high as the addition to proved reserves, in other words.

The percentage gains in recent years indicate an acceleration from the early 1960's. The average annual increase

6. Annual net production is defined as the total volume of natural gas withdrawn from producing reservoirs less the volume returned to such reservoirs in cycling, repressuring of oil reservoirs and conservation operations.

7. Includes all new gas reserves resulting from new field and new reservoir discoveries plus new reserves resulting from extensions and upward and downward revisions of estimates of reserves previously discovered.

in marketed production advanced from 4.7 percent during 1961–65 to 6.4 percent during 1966–68.[8]

The finding to production ratio F/P has also declined from a ratio of about 2.0 during the late 1940's and mid 1950's to about 1.4 as an annual average over the last 5 years. This latter figure means that new reserve additions are approximately 40 percent greater than production.

In 1968 the F/P ratio dropped to 0.6 or 40 percent less than production. This was the first time since this information had been collected that annual reserve additions did not equal or exceed annual production.

The decline in both the R/P and F/P ratios can be related to the decreasing exploratory effort. Starting in 1955, there was a general decline in geophysical work, which in turn was reflected in a sharp reduction in exploratory drilling after 1956. We note, however, that the API's report of drilling statistics for the third quarter of 1969 indicates that more exploratory gas wells were drilled this quarter than for the same quarter in 1968. The cumulative year total to date for 1969 is also higher than for 1968.

The percentage of significant accumulations of oil or gas discovered has decreased as well, although counterbalancing this to some extent, there has been some increase in average findings per well. Moreover, paralleling the trend in exploratory drilling activity is the decline in the total drilling effort. The number of total wells drilled has followed a general downward pattern since 1956 when 57,111 wells were drilled as compared to the 30,495 wells drilled in 1968, a decline of 42.2 percent. This is expressed in table 5.

Some of the more obvious factors which have contributed to the decline in the gross number of wells drilled are State

[8] Marketed production is net production less losses and waste. *See Gas Facts*, American Gas Association, Department of Statistics.

regulations requiring wider spacing between development wells, diversion of exploration funds into the worldwide search for petroleum and reduced participation by the smaller operators, who are often unable to compete in the high cost areas such as the Offshore Continental Shelf.

At the end of 1968 the proved remaining recoverable reserves of the contigious States were estimated to be 282.1 billion MCF, for an R/P ratio of 14.6 years.

A Commission staff report entitled, "A Staff Report on National Gas Supply and Demand," released by the Commission on October 1, 1969, contributes to public understanding of the gas supply problem. A copy of this report is attached to my statement for inclusion in the record.

(The report referred to above is in the committee files.)

Obviously, the Commission cannot adopt any definitive conclusion on the basis of the report until the problem has been fully examined in record evidence before the Commission. However, the report presents some very pertinent discussion.

If present reserve additions and production trends continue, the report estimates that the present R/P ratio will decline to approximately 10 by 1973. It is the conclusion of the report that the ability to meet requirements on a national level will be impaired at about the That is in table 3.

After 1973, annual reserve additions ranging from 30.2 to 52.4 billion MCF will be required for the period 1974–90 if demand as projected by the Future Requirements Committee were to be met solely from domestic production while maintaining an R/P ratio of 10. That is in table 3.

Additions of this magnitude will be difficult to obtain in view of past experience. The largest annual reserve addition up to this time was 24.7 billion MCF and this occurred in 1956.

It is the staff's opinion, as expressed in the report, that total domestic reserves may be generally adequate to meet projected total demand for 4 or 5 years; however, the domestic supply in various areas of the Nation may be inadequate to meet incremental growth. The extent of this inadequacy has not yet been fully determined.

* * *

Senator JORDAN. A more alarming statistic that you gave us on page 17 is the finding to production ratio, the FP. I believe you said in 1968 the FP ratio dropped to 0.6 percent.

This was the first time since information has been collected that annual reserve conditions did not equal or exceed annual production.

That is a very critical barometer, too, is it not?

Mr. NASSIKAS. It is, indeed. In fact, I believe this was one of the most important, if not the controlling factor which elicited a letter from the American Gas Association in the latter part of 1968, whereby the *distributing companies themselves, through that association, recognized that something should be done that would supplement their efforts, indicating the supply was getting critical.*

So, all three segments of the industry seemed to be agreed on that. That is unusual in the industry. They don't always agree.

* * *

Senator JORDAN. Commissioner Carver.

Mr. CARVER. Let me back up one step and say in answer to your previous question I think it ought to be recognized that the change in the ratio reflects a reduction in inventory.

In almost any business, it is possible to maintain a level price if you are reducing your inventory, particularly if you are on a cost based methodology, which is the one we are on.

At this time the cost of producing gas has not gone up. I don't think that has anything to do with the finding-to-production ratio.

Insofar as there has been a decline in it, that is just another way of saying people aren't digging as many holes in the ground.

Senator JORDAN. But if it remained long at less than 1 to 1, it would be a cause for alarm, would it not?

Mr. CARVER. It is already a cause for alarm.

* * *

Senator BELLMON. Thank you, Mr. Chairman.

You have testified that there has been a substantial increase, about 16 percent, in the cost of other commodities during which time the gas prices have not gone up at all.

During this period of time, have the costs of exploration and production in the gas industry increased?

Mr. NASSIKAS. Are you talking about a single cost, or total costs?

Senator BELLMON. I am talking about the costs of finding and producing gas, everything that goes into it.

Mr. NASSIKAS. It has increased.

Senator BELLMON. And yet the price of gas has stayed the same?

Mr. NASSIKAS. Yes.

Senator BELLMON. Would you say that this has had any effect on the supply of natural gas?

Mr. NASSIKAS. Any cost affecting profit availability and retained earnings is bound to have an effect.

Also, the extremely important effect of the relationship between drilling for oil and gas in association with oil, the type of capital commitment that might be made in this area is also extremely important, so the management decisions which must be based upon expected return on investments have a great deal to do with the supply of gas.

Senator BELLMON. What effect would you say that this has on the supply of gas, the fact that production costs have gone up and the sale price of gas has stayed stable?

Mr. NASSIKAS. *Well, when you get a squeeze, increasing costs and a static level, then, of course, this may result in less exploratory effort.*

This is really part of the same question, as I see it, of what price level of sales price, is necessary to be established in order to induce the necessary exploratory effort, and this is in proceedings before us.

Senator BELLMON. You said on page 12 of your testimony that the demand for gas has been significantly underestimated by both the industry and the Government.

Has there been any indication from the gas industry that the supply of natural gas was diminishing so that we might face a shortage?

Mr. NASSIKAS. Yes.

Senator BELLMON. The gas industry has served warning that we are facing a shortage?

Mr. NASSIKAS. The producers have served warning, yes.

* * *

Mr. Ragge. * * *

It seems to me that if we are going to continue to be obliged to resolve problems such as we have today within the framework of the existing rigidified area pricing methodology which will take 2½ years to produce an examiner's decision before we can act, then I can only conclude that this will be an exercise in futility.

I agree completely with my colleague Commissioner O'Connor's suggestion that *settlement is a possible way out* of this dilemma. I also submit that we ought to be looking at other devices, such as indices which would extricate us from this extremely cumbersome methodology.

Excerpts from statement of John N. Nassikas, Chairman, Federal Power Commission, hearings before the Subcommittee on Energy, Natural Resources and the Environment Committee on Commerce United States Senate, January 30, 1970*

* * *

Discernible trends of supply and demand indicate a developing natural gas shortage in the United States requiring action to arrest undesirable trends.

Short range effects appear to be that some pipeline suppliers in various sections of the United States may be unable to meet demands of distribution companies for new service in the winter of 1970-1971. Over the longer term, assuming that the present annual incremental growth of demand continues at its present rate and that additions to supply do not correspondingly increase from increased discoveries in the lower forty-eight states or supplementary sources (e.g., liquefied natural gas, gasified coal, increased imports from Canada, or delivery of natural gas from the North Slope of Alaska) it is manifest that total gas energy demands will not be met by the natural gas industry.

* * *

The immediate source of natural gas to meet short term energy demands is in the lower forty-eight states since supplementary sources cannot be developed in commercially feasible quantities until the middle to the later years of this decade.

* * *

The gas component of the Consumer Price Index, which applies to wage earners and clerical workers in the urban areas of the United States, increased 2.0% from 1961 to

---

*The portions of this statement relating to natural gas supply draw heavily upon the Chairman's statement to the Subcommittee on Minerals, Materials and Fuels, excerpted at pages .... to .... of this Appendix B.

1968, but during the same seven year period the overall Consumer Price Index rose 16.3 percent.

Table V

PATTERN OF PRICE CHANGES FOR NATURAL GAS, 1961 to 1968

	Percent Change 1961-1968
Index of wellhead prices	+7.4
Average prices to ultimate consumers, by class of service:	
Residential	+0.5
Commercial	-2.0
Industrial	+2.6
Other	+5.6
All Classes	0.8

Excerpts from "Broadening the Supply Base: A Proposal to Eliminate Producer Price Regulation," an Address by Carl E. Bagge, Commissioner, Federal Power Commission before the Midwest Gas Association, 65th Annual Convention, Colorado Springs, Colorado, February 24, 1970

* * *

What have these general observations to do with the gas industry? The gas industry provides a dramatic illustration of the need for reexamining our national goals and providing responses which are relevant to the achievement of those goals. An examination of the gas industry within the time frame of the next decade and through the prism of the new goal of a concern for the quality of life, reveals that this industry provides a potential contribution far greater than we may have realized.

The gas industry provides, through the technological development of the fuel cell, a potential alternative to central station power generation. The increasing difficulties confronting the electric utility industry in the siting of both nuclear and conventional generating plants and transmission facilities underscore the need for such an alternative. The gas industry also provides the Nation a unique weapon in our battle to combat air pollution. Indeed, entirely new markets employing gas as a means of propulsion constitute a revolutionary potential unknown only a few years ago. Our national ethos includes an unquestioning faith in the efficacy of competition as the ultimate means of assuring protection of the consumer and efficiency in our use of resources. The gas industry provides an effective competitive force which provides the power consumer with a truly competitive choice. *If that choice is to be preserved for the American public, if gas is to be made available for the revolutionary new power technologies to alleviate the urgent problem of air pollution and to contribute to several*

other environmental goals, and if we want to provide an alternative to central station power generation, then it is clear that the gas industry must, as a matter of national policy, be stimulated to serve not only as a viable but as an aggressive force in our energy economy. Our national goals have therefore changed since the enactment of the Natural Gas Act. *Governmental responses* must accordingly be made relevant to these goals. It *cannot be circumscribed* by more limited objectives. *A blind adherence to the "exploitation of the gas consumer" mentality* of the thirties and to the legal precedents which have been encrusted upon that limited objective may well be contrary to the achievement of contemporary goals.

* * *

It is when we compare the gas industry's potential contribution to the quality of life in the 70's with the effect of existing government policies that the basic inconsistencies become discernible. Today, we observe an industry experiencing, in varying degrees throughout the nation, substantial difficulties with gas supply, an industry forced to turn to higher cost increments of gas from foreign sources to meet demand, *an industry confronted with a new level of demand stimulated, in part, by regulation which at the same time has, in part, inhibited expansion of the base supply.* There is no governmental commitment of federal funds for research and development in the gas industry such as exists with respect to electric power. Outdated legislative policies prevent the benefits of gas industry technology from accruing to consumers and producers in the non-contiguous states and prevent the economic transportation of gas in liquid form to domestic consumers. And a new LNG technology designed to serve unconventional markets is being shackled into the conventional utility mold by the extension of the Natural Gas Act.

This discrepancy between reality and existing government policy is precisely the problem to which the recently released Annual Report of the Council of Economic Advisors was addressed. In urging a greater reliance by regulatory agencies upon market mechanisms, the report states:

> The American experience with regulation, despite notable achievements, has had its disappointing aspects. Regulation has too often resulted in protection of the *status quo*. . . . Competition can sometimes develop outside the jurisdiction of a regulatory agency and make inroads on the regulated companies, threatening their profitability or even survival. In such cases, pressure is usually exerted to extend the regulatory umbrella to guard against this outside competition, so that the problems of regulation multiply and detract from the original purpose of preventing overpricing and unwanted side effects.
>
> . . . As quasi-judicial bodies, the regulatory commissions tend to give much weight to precedent. As a result, change of any kind becomes hard to justify and even harder to allow when some affected group can claim immediate harm, whereas the potential beneficiaries are widely diffused and usually not represented. Yet innovation and adaptation are the dynamics of economic progress.
>
> There is no clear safeguard against these dangers, but more reliance on economic incentives and market mechanisms in regulated industries would be a step forward. . . . Industries have been more progressive when the agencies have endeavored to confine regulation into a necessary minimum and have otherwise fostered competition. When regulation has stifled

competition, performance has deteriorated. The clearest lesson of all, however, is that regulation should be narrowed or halted when it has outlived its original purpose.

I submit that these observations are relevant to the discrepancies which now exist in several important areas between the potential of this industry in serving our new goals and existing government policies. All of them should be reexamined as we enter this new decade. I will attempt here to deal with only one—producer price legislation.

* * *

An examination of producer price regulation in the context of the next decade reveals problems of an entirely different character than those with which we have dealt in the past. Discernible cracks are evident in the regulatory dike which was constructed to protect the interstate gas market from the forces of the market. Indeed, several breaches in this regulatory dike are already clearly discernible.

My proposal in an address last spring at Oklahoma State University to base producer pricing upon indices and my colleague Commissioner O'Connor's proposal in an article in the *Public Utilities Fortnightly* to predicate price regulation upon a basing point method both reflect a growing body of thought that there is an urgent need to give weight to market realities in producer price regulation. These proposals both reflect an effort to make FPC price regulation effective in competing with the intrastate market and in responding to the supply and demand dynamics of the interstate market.

Each proposal was intended to initiate a public dialogue regarding the need for the Commission to extricate itself

from the strictures of the existing cost based area rate methodology. Commissioner O'Connor's basing point concept is incorporated in the recent rulemaking proposal concerning the establishment of area rates in the Appalachian-Illinois Basins. In that proceeding, it is proposed that the field price of gas be based on the adjacent pipeline gas rather than producer costs.

The adoption of indices giving weight to market forces has not been implemented by the Commission. I am grateful, however, to Mr. Stanley Learned for contributing to the public dialogue regarding this proposal by his response before the INGAA meeting here in Colorado Springs last fall. I believe there is an immediate need, based upon existing circumstances, to establish such indices for an effective and responsive method of producer regulation. This is essential now because existing market forces must be recognized and given weight in arriving at a just and reasonable rate.

The problem of producer regulation in a period of short-term gas surplus which was characteristic of the decades of the fifties and sixties is of an entirely different dimension than that of a period of tight supply. It is clear that the Commission must be apprised more fully and more quickly of the supply and demand dynamics of the interstate gas market. Functionally effective prices relate more directly to economic factors than accounting costs no matter how sophisticated the costing method. Broadening the rationale of producer regulation by reflecting market realities is a response to only part of the problem. The methodology of producer regulation must also be changed to permit an effective and timely response in order to avoid serious national consequences. The Commission cannot continue gathering multitudinous volumes of cost data during unduly time consuming rate proceedings. Alternatives must

be adopted to the existing controversies regarding cost analysis and cost methodology—and they must be adopted quickly.

It is essential that we recognize, however, that the adoption of such alternatives would provide only a response to the problem in its present dimensions. The need for such alternatives is based upon the impact of existing market forces and their present effect upon the supply of interstate gas. We must recognize that the adoption of such alternatives merely provides a short-range solution to the problem. For as we look further into the decade of the 70's several even more substantial fissures in the regulatory dike become apparent.

The most immediate threat of a breach lies in the proposals for substantial imports of gas from Canadian sources to Midwestern markets at higher prices. Farther west another breach may be caused by long-range proposals for Canadian imports at still higher prices. In less than three years, further breaches are threatened by the proposed imports of base load LNG from Algeria at substantially higher prices. Evidence of additional breaches is also discernible as a result of proposed imports from Venezuela and several other sources. Should the existing available supply and demand imbalance require, in the public interest, the importation of these substantial quantities of gas in both vapor and liquid form at significantly higher prices than those which presently prevail, we must then acknowledge that the market will have effectively and irrevocably swept away the dike of producer regulation.

When this occurs, regulatory policy cannot continue to operate as it has in the past with or without more rational alternatives to cost based pricing. Regulation cannot then escape the unpleasant fact that it will have been deluged by

the very market forces for which it was intended to substitute.

Can regulation effectively respond by acknowledging the existence of the higher priced alternative sources and basing the domestic producers' price upon those sources with an appropriate discount for the cost of transportation? Can regulation effectively respond by instituting a basing point form of regulation predicated upon the market price of the highest or the average price of the alternate increment of gas? Can regulation effectively respond by employing indices to reflect the impact of these intrusions of the market? Is there any rational way in which producer pricing may continue to be effectively regulated when, for reasons of continuity of service, the market not only is acknowledged but is affirmatively sanctioned by the Commission in the form of imports of substantial quantities of higher priced base load gas?

I submit that the process of producer price regulation would no longer be viable with a competing market-oriented gas supply introduced into the present fabric of the regulated interstate gas market. Any response which regulation would attempt to make within this context can no longer honestly be regarded as "price" regulation. We can continue the incantations and express the search for a price in the litany of regulation, but we delude only ourselves if we believe that the ritual has any meaning. Once we are required to acknowledge that the inexorable laws of supply and demand require our sanction of market prices in the public interest, we can no longer characterize the process as price "regulation". Although other public purposes may be served by the continued regulation of producer contracts, we must face up to the reality, in that event, that regulation cannot effectively encompass price.

* * *

What then is the alternative for national policy in the decade ahead as it seeks to provide continuing protection for the public and gas consumers. The Supreme Court held that regulation must substitute for the lack of competition in field sales of natural gas. But neither that decision nor regulation nullified the long-term forces of the market. The impact of the market may have been delayed, but it is the market that is controlling in the end.

Hence, unless an alternative policy is developed we are on the verge of entering into the worst of both worlds. We are confronted on the one hand by a demand stimulated in part by regulation which at the same time has inhibited in part expansion of the base supply. And we are confronted on the other hand by a market that is bringing forth alternatives into the supply vacuum at prices much higher than present regulated levels.

Since price regulation will be ineffectual in this context, the challenge is to harness the market so that it will work for the consumer. To meet the challenge would require a reversal of government policy—of the role originally ordained for regulation. When federal price control was imposed, the base supply was surplus to short-term demand. Even at unregulated prices, gas had been a devastating competitor, rapidly taking over markets long dominated by other space-heating and industrial fields. Regulation substituted for the lack of competition among sellers of gas at the wellhead. But that is academic if those sellers do not have an available supply with which to compete for incremental business. And the overriding fact today is that the available base supply, being inadequate to meet current potential demand, can no longer perform its competitive function.

It appears that gas is not presently available in sufficient quantities, for instance, to moderate the market price of new supply sources that are moving in to satisfy unmet demand.

In this situation, therefore, the role facing government policy in the seventies is not so much to nurture the competitive vigor of base suppliers which was the goal of regulation in the fifties and sixties as it is to reinvigorate the base supply itself. Without a dynamic base supply of natural gas, the interstate market will not be able to compete for supplies with the unregulated intrastate market. Nor will there be any effective price competition for the unconventional higher-priced supplies that are knocking at the market door. But a base supply, reinvigorated, can be the key to the price levels at which these new sources enter and can place the consumers less at the mercy of the supplementary sources.

Excerpts from "Regulatory Response to Changes in Supply-Demand Relationships," remarks of Commissioner John A. Carver, Jr., Federal Power Commission, before the Tenth Annual Institute on Exploration and Economics of the Petroleum Industry, the Southwestern Legal Foundation, Dallas, Texas, March 5, 1970

* * *

Mr. Jacobs, acting at the request of the Board of Directors of the American Gas Association, of which he was then President, called attention to distributor concern about gas supply on December 16, 1968. Distributors were, he said, having difficulty in contracting for increases in long-term gas supplies, and the letter recommended that the Federal Power Commission act to provide additional economic incentives for exploration and development.

The action was, as Mr. Jacobs admitted in his final paragraph, an "extraordinary step." Its significance was recognized by the Commission. Until then, the "distributor group" had been aligned as an adversary of the "producer group."

Charitably stating it, Mr. Jacobs thinks regulation can do something about his difficulties; a more grim view would be that regulation is responsible for his difficulties.

* * *

Not all the public discussion has been in criticism of the area pricing scheme itself. In my dissent to the *Southern Louisiana* proceedings on rehearing, *I urged that the "settlement" proposals which had been submitted could be validated in the record. The number of producers and distributors who were in accord, although not unanimous, furnished a kind of functional test.* I turned to the record itself, where a review of the areas of judgment, or "zone of reasonableness" as I called it, in the light of the supply pressures which the Commission itself had acknowledged by promising a new offshore proceeding, amounted to application of a functional test within the Court-approved costing methodology.

Excerpts from "Charting the Regulatory Course," Remarks of John N. Nassikas, Chairman, Federal Power Commission before the New England Gas Association, Boston, Massachusetts, March 19, 1970

* * *

It is becoming increasingly apparent that the most critical issue facing the Federal Power Commission and its jurisdictional sector of the gas industry (pipeline companies and producers) and the state regulatory agencies and their jurisdictional sector of the gas industry (the distribution companies) is the adequacy of gas supply to meet the incremental demands of an expanding national economy. *This is not an instant issue which was just born yesterday. It has developed slowly over the course of the past decade—accelerating in the past five years.* Analysis of discernible demand-supply trends impels the conclusion that proved, deliverable reserves to service consumer demand are becoming inadequate.[3]

* * *

3. In my testimony on January 30, 1970 before the Subcommittee on Energy, Natural Resources and the Environment, Committee on Commerce, U. S. Senate, I stated: "Discernible trends of supply and demand indicate a growing national gas shortage in the United States requiring action to arrest undesirable trends." citing a Staff Report on National Gas Supply and Demand, issued by the FPC on September 1, 1969, which asserts (at page 1): "Evidence is mounting that the supply of natural gas is diminishing to critical levels in relation to demand." An FPC Staff Report entitled, "The Gas Supplies of Interstate Natural Gas Pipeline Companies, 1968," issued in January 1970, concludes that, based on gas supply and deliverability information filed by interstate natural gas pipeline companies, by 1974, assuming continued trends of reserve additions and increasing market requirements, there may be a 10 percent deficiency in the ability of the natural gas industry to meet requirements, with the level of deficiency varying from company to company. The FPC Staff Report underscores estimates made in early 1969 by 11 major pipelines that the increased market demand for the 1970-71 heating season indicated a need for new gas in excess of two billion cubic feet daily which at that time had not been contracted.

In my testimony before the Subcommittee on Energy, Natural Resources and the Environment of the Senate Committee on Commerce, on January 30, 1970, I testified as follows:

"The decline in natural gas supply in relation to demand is illustrated in the following table:

Table VI

UNITED STATES NATURAL GAS SUPPLY*

Actual 1946 - 1968

(All Volumes in Billion Mcf @ 14.73 Psia and 60° Fahrenheit)

Year (1)	Annual Net Production[1] (2)	Cumulative Net Production (3)	Annual Net Reserve Additions[2] (4)	Year-End Proved Reserves (5)	Cumulative Proved and Produced Reserves (3)+(5) (6)	F/P Ratio (4)÷(2) (7)	R/P Ratio (5)÷(2) (8)
1946	4.9	88.8	17.6	159.7	248.5	3.6	32.5
1947	5.6	94.4	10.9	165.0	259.4	2.0	29.5
1948	6.0	100.4	13.9	172.9	273.3	2.3	28.9
1949	6.2	106.6	12.7	179.4	286.0	2.0	28.9
1950	6.9	113.5	12.0	184.5	298.1	1.8	26.9
1951	7.9	121.4	16.1	192.8	314.2	2.0	24.3
1952	8.6	130.0	14.5	198.6	328.6	1.7	23.1
1953	9.2	139.2	20.9	210.3	349.5	2.3	22.9
1954	9.4	148.6	9.6	210.6	359.2	1.0	22.5
1955	10.1	158.7	22.0	222.5	381.2	2.2	22.1
1956	10.9	169.6	24.8	236.5	406.1	2.3	21.8
1957	11.4	181.5	20.2	245.2	426.7	1.8	21.4
1958	11.4	192.4	19.0	252.8	445.2	1.7	22.1
1959	12.4	204.8	20.8	261.2	465.9	1.7	21.1
1960	13.0	217.8	14.1	262.2	480.0	1.1	20.1
1961	13.4	231.2	16.5	265.4	496.6	1.2	19.8
1962	13.6	244.8	18.9	270.6	515.4	1.4	19.9
1963	14.5	259.3	18.4	274.5	533.8	1.3	18.9
1964	15.3	274.6	20.3	279.4	554.0	1.3	18.2
1965	16.3	290.8	21.3	284.5	575.3	1.3	17.5
1966	17.5	308.3	19.4	286.4	594.7	1.1	16.4
1967	18.4	326.7	21.3	289.3	616.0	1.2	15.7
1968	19.3	346.0	12.1	282.1	628.1	0.6	14.6

*Excluding Alaska.

Source: Based on American Gas Association Data.

1. Net production is defined as the total volume of natural gas withdrawn from producing reservoirs less the volume returned to such reservoirs in cycling, repressuring of oil reservoirs and conservation operations.

2. Annual net reserve additions includes all new gas reserves resulting from new field and new reservoir discoveries plus new reserves resulting from extensions and upward and downward revisions of reserves previously discovered.

Excerpts from an address by Commissioner Albert B. Brooke, Jr., Federal Power Commission, before the 1970 Tri-State Meeting of the Ohio-Indiana-Michigan Municipal Electric Associations, Toledo, Ohio, April 23, 1970

* * *

The Federal Power Commission's staff report on gas supply disclosed that the reserves to production ratio of 14.5 years is at the lowest level of recent years, and still decreasing. *In essence, we are using more natural gas than we are able to find and add to the gas reserve inventory. In my opinion, a serious natural gas supply situation is with us now, and we may be at the point of severe shortage in three to five years unless there is a significant upturn in exploration and development.* Some of the slack undoubtedly will be taken up by imports of liquefied natural gas or by increased pipeline importations from Canada or, remotely, from Alaska. Although extraction of pipeline quality gas from shale and coal offers some hope, I personally do not believe that quantities of the magnitude required from these sources will be available within the next several years.

Excerpts from remarks of Commissioner John A. Carver, Jr., Federal Power Commission, before the annual convention of the Tennessee Gas Association, Nashville, Tennessee, Friday, May 15, 1970

* * *

We are now grappling with natural gas supply problems on at least three levels of immediacy. One relates to the storm-warnings of *localized problems which will occur if next winter's weather is even normally bad.* Many of these problems occur at the friction point between state and federal regulatory responsibilities, and between regulated and unregulated segments of the energy business. Without getting too deeply into it, one step generally agreed to be necessary is to find ways to make maximum utilization of pipeline capacity to fill all the available storage capacity. One inhibiting factor is that some systems fear that their cooperation in such an effort up to the full extent of their capability might expose them to being brought under federal jurisdiction. The so-called Hinshaw exemption certificate might be in jeopardy; presently non-jurisdictional intrastate pipeline companies fear that if their gas gets into interstate lines, they will come under our jurisdiction under the *LoVaca* case, and thus they decline to cooperate even though they may have available gas.

Last week, the Commission acted to make it clear that certain transactions could take place without jeopardizing exempt status under Hinshaw. Maybe something can be done about *LoVaca*, too.

Mid-range problems are similarly perplexing. Any student of natural gas economics and markets can tell you that in the Texas Gulf Coast area and in Permian Basin, the so-called intrastate market has literally absorbed new supplies of natural gas. The dichotomy of state and federal

responsibility has led to an apparently anomalous situation where unregulated purchasers (that is, purchasers not regulated by FPC) dominate the market, allowing producers to ask and get higher prices from them than interstate purchasers are allowed to pay. One answer to the resulting difficulties experienced by the interstate pipelines, is to make the intrastate segment subject to federal regulation. Aside from the question of whether this would simply further dry up exploration activities, such legislation is unlikely. On the other hand, certain recent judicial pronouncements support the view that the answer to supply problems may lie in raising the regulated price.

The present cost-based ratemaking scheme has been judicially approved by the Supreme Court in *Permian*. That would appear to settle the matter, except that there has followed some judicial questioning of whether the scheme is really so rigid, in the *Southern Louisiana* decision in the Fifth Circuit. That case is itself being questioned on rehearing, and may go to the Supreme Court. The thing to watch for in this connection is the way the Commission itself reacts to the suggestions made by Judge Thornberry in *Southern Louisiana*.

It would be inappropriate for me to use this speech to say how I think we ought to react. *I can say with great vigor that I think we ought to be doing more than we are doing.* As one who dissented to the Commission's refusal to substantively review and hopefully approve the proffered "settlement" in *Southern Louisiana* on rehearing, *I am free to refer to my own published dissent to show that I do not share the view that the new Southern Louisiana proceeding, AR69-1, is the only vehicle available to us for a review of the supply crisis evidence which is urged upon us.*

* * * However true it may seem in the context of the particular statement, it is equally inappropriate for the FPC to blame Interior's leasing policies for a gas shortage, and for Interior to blame FPC's pricing policies for a gas shortage. Both are probably equally right, and equally wrong. The real vice of the matter is in wasting any of our precious time in a fruitless inquiry about who is most to blame.

Considering how much agreement there now seems to be among the various segments of the industry, between state and federal officials, and among the various responsible federal agencies, the remarkable thing is that recent months have been almost devoid of Commission action. There have been innumerable speeches (including this one) but policy and program seem to be in a state of suspense. We have an unprecedented backlog of cases awaiting Commission action, in every area of our activity from rate cases to area rate cases. Certificate cases seem to change complexion as the companies seem shocked to discover their own deliverability problems. Our cases are not coming out, and you have a right to ask us why they aren't.

Excerpts from "An Outline of National Energy Policy: Some Personal Reflections," Remarks of John N. Nassikas, Chairman, Federal Power Commission at the Federal Power Commission 50th Anniversary Program, Washington, D. C., June 3, 1970

* * *

With reference to the natural gas industry, I conceive as our regulatory objective the *utilization of the Commission's regulatory powers in a way which will assure adequate gas service for the consumer at a reasonable price by measures designed to restore the necessary balance between supply and demand and to encourage investment in needed facilities.* It is apparent that *the most critical issue facing the Federal Power Commission* and its jurisdictional sector of the gas industry (pipeline companies and producers) and the state regulatory agencies and their jurisdictional sector of the gas industry (the distribution companies) *is the adequacy of gas supply* to meet the incremental demands of an expanding national economy. This crisis has developed slowly over the course of the past decade accelerating in the past five years. *Analysis of discernible demand-supply trends impels the conclusion that proved, deliverable reserves to service consumer demand are becoming inadequate.*

In the face of ever increasing demands, reserves have been dropping. The American Gas Association, in its recent report on proved reserves, indicated that for the second consecutive year, production exceeded reserves additions. In 1968, when 19.3 trillion cubic feet were produced the findings/production ratio was 0.69. That is, for each Mcf produced only 690 cubic feet of reserves were added. In 1969, the f/p ratio dropped to 0.4 and reserves at the end of 1969 stood at 275 trillion cubic feet.

The Federal Power Commission has attacked the gas supply problem through its regulatory procedures, recon-

mended changes in gas leasing policies of the Department of the Interior, proposed continuance of tax policies designed as an incentive to natural gas exploration, development and production, participation by its Chairman in the Cabinet Task Force study of Oil Import Controls with particular reference to the adverse effects of greater oil imports on gas supply.[11]

On August 18, 1969, the Commission urged the Secretary of the Interior to resolve pending regulatory issues "so that systematic leasing and development of new gas reserves may be promptly resumed" in the Outer Continental Shelf. These offshore areas, particularly in offshore Louisiana and Texas, have contributed a rising proportion of the national gas supply and are estimated to be the source of approximately 25 percent of the additional potential reserves of the lower 48 states. The Commission also has pointed out that the leasing policies for federal domain lands may be too restrictive and some consideration might be given to royalty with fixed bonus bids rather than high bonus bids, so as to conserve cash flow and reduce the initial capital commitment of independent producers to stimulate exploration and development of new gas reserves.

---

11. I have discussed gas supply in: Hearings before the Subcommittee on Minerals, Materials and Fuels of the Committee on Interior and Insular Affairs, United States Senate, 91st Congress, 1st Session, November 14, 1969, Committee Print, pages 115 - 183; Statement of John N. Nassikas, Chairman, Federal Power Commission, Hearing before the Subcommittee on Energy, Natural Resources and the Environment, Committee on Commerce, United States Senate, January 30, 1970, pages 71 - 95; and Separate Report on the Oil Import Question by the Secretary of the Interior, the Secretary of Commerce, and the Chairman of the Federal Power Commission, released February, 1970, pages 369 - 393 examines the Impact of the Oil Import Control Program on the Natural Gas and Electric Utility Industries. The use of natural gas in electric power generation is summarized in detail at pages 390 - 393.

Excerpts from Address to the 11th Triennial Congress of the International Gas Union June 9-13, 1970, Moscow, U.S.S.R. by John N. Nassikas, Chairman, Federal Power Commission.

* * *

Today the industry has matured. Essentially all market areas which can support gas service are served by pipeline systems, the industry has reached a level of financial stability and its markets continue to grow with increasing requirements from existing and new customers. Last year's market growth, for example, approached 8 percent. But the very process of maturity has engendered other problems.

One of the most difficult and serious problems confronting the interstate pipelines, the local gas distributors and the Commission is the growing evidence of a short-term deficiency in gas supplies to meet incremental market demand which is projected to grow at a compound rate of 5.3 percent per year during the 1970's, according to the estimates of the American Gas Association. Assuming that our potential reserves and the anticipated supplementary sources, including liquefied natural gas or gasification of coal, can be combined on a timely basis by a coordinated government-industry program, the supply-demand balance should be restored over the course of the next five years.

The impending shortage can be attributed in part to the explosive increase in gas requirements in the United States. This is reflected in the increased annual net production of natural gas (Table 1) from 4.9 trillion cubic feet in 1946 to 20.6 trillion cubic feet in 1969. Projected requirements to the year 1990 as developed by the Future Requirements Committee[2] in its September 1969 report showed natural gas requirements for the United States increasing by over 100

2. A Committee composed of industry, academic and government experts in gas usage and markets operated under the auspices of the University of Denver.

percent in the next two decades to 46.7 trillion cubic feet in 1990. Such an increase would require the addition of 800 trillion cubic feet of new reserves in the next two decades if requirements are to be met solely by domestic production while maintaining gas reserves equal to 10 years production. *Addition of such large volumes equal to more than 1½ times all of the natural gas discovered to date in the United States, will be a formidable task.*

Excerpts from "The National Energy Crisis," John N. Nassikas, Chairman, Federal Power Commission, Remarks before the National Press Club, Washington, D. C., August 10, 1970.

* * *

Another frontal attack on the energy problem was initiated by the formation of an Interagency Power and Energy Committee convened by the Office of Emergency Preparedness in March, 1969 to review total power supply problems with the various agencies having jurisdictional responsibilities over the problem and to adopt an effective course of action to resolve the developing fossil fuel crisis. On May 5, 1970, the first report of the Interagency Committee surveying electric power problems was issued, basically concluding:

1) That coal was in critical supply, with questionable ability of the industry to build up adequate inventories to meet winter demand due to the Federal Coal Mine Health and Safety Act, inadequate rail transport, export of coal, an increasingly restrictive environmental standards;

2) That residual fuel oil, particularly low-sulfur, was then in short supply and could not meet all the supply gap created by coal due to short-term conversion problems as well as supply of the required environmental quality oil;

3) That natural gas was in short supply and the use of natural gas during the summer as a substitute for coal was unlikely, since natural gas companies had drawn heavily on winter storage in 1969-1970, requiring replenishment and conservation of gas to meet contractual demand; and

4) That the railroad car shortage has created a regional bottleneck, according to affected utilities: low demurrage charges and exports have tied up rail cars until their loads can be transferred to ocean transport.

In addition to these regulatory measures under our control, by letter dated July 9, 1970, we have also urged the Secretary of the Interior to conduct a general oil and gas lease sale in the Gulf of Mexico. The Commission, by letter dated August 18, 1969, had previously urged that steps necessary to the orderly marketing of Outer Continental Shelf leaseholds be accomplished at the earliest practicable time. Public hearings were held on July 14, 1970, in New Orleans, and the Chief of our Bureau of Natural Gas presented detailed testimony in further support of the sale at that hearing. The importance of the Louisiana lease sale cannot be over emphasized since the geological evidence would seem to indicate that this is one of the most prolific natural gas potential areas in the world; since gas from Federal domain lands on the Outer Continental Shelf can be dedicated to the interstate market without diversion to intrastate markets; and because the Offshore Louisiana area is capable of rapid development connecting with existing pipeline systems to meet the threat of near term gas shortage in the Northeast and Great Lakes marketing areas.

We have conducted a comprehensive survey over the past few months of the natural gas supply situation in the Northeastern, Middle Atlantic and Middle Western states. Our survey and conferences with state public regulatory officials, representatives of transmission and distribution companies and gas consumers indicate that the gas supply situation has become more critical—as was reasonably evident for some time from an analysis of staff studies undertaken by the Commission and other discernible evidence and trends. Increasing applications to the Federal Power Commission for authority to import gas from Canada and other foreign sources are further evidence that domestic demand is not being met by domestic supply. Major pipeline com-

panies have announced limits on increases in daily and annual deliveries to industrial customers. There have also been proposals for significant reductions in service levels. Other pipeline and distribution companies have instituted measures to limit the rate of growth of sales. On June 4, 1970, the Independent Natural Gas Association of America, in a letter to me, reported that a significant deficiency in meeting incremental demand is anticipated for the 1970-71 winter by the twelve major interstate transmission companies surveyed. This deficiency in supply for incremental load approximated three billion cubic feet per day. Recognizing the possibility of overlap in the stated requirements, this represents a one billion cubic feet per day increase over an earlier June 1969 estimate for the same 1970-71 heating season.

The Bureau of Natural Gas has been working on a priority basis to assess the gas supply situation for the 1970-71 heating season. Although it may be necessary to curtail some industrial gas service in the New England area and in the Middle West, our preliminary review would indicate that gas distribution companies should be able to meet all essential residential and commercial customer needs unless an unusually severe winter is encountered.

A June 1970 staff analysis of gas supply for electric power generation in the National Power Survey regions indicated that gas for the generation of electricity in the Northeast, Middle Atlantic, and Middle Western states should be available in approximately the same quantity as in the 1969-1970 season. Due to deficiencies in coal and residual fuel oil supply as the result of the marked change in availability and price level of these fuels resulting from the diverse factors previously discussed, the demand in the last few weeks for natural gas by electric utilities and other industrial users has dramatically increased. Our continuing

staff review of the availability of natural gas for electric power generation indicates that currently electric utilities are experiencing problems in securing needed contract commitments for gas for base load generation in the South Central, and possibly Southeast, Power Survey regions. A large proportion of the gas sales for power plant fuel in the South Central region is from intra-state sources of supply not controlled by the Federal Power Commission. We are maintaining a close surveillance and review of the problem and upon completion of our review of the national inventory of fossil fuels, we should shortly be in a position to assess more precisely the magnitude of the problem for this coming winter and determine the most effective course of action to resolve any developing energy shortage.

In the near term, national energy policy is preoccupied with the resolution and prevention of crises from shortages. Over the long-term, national energy policy must concentrate on the ultimate goal of assuring adequate energy resources to sustain the continued economic growth and productivity of our nation. In the near term we must look to conventional gas sources in the lower 48 states and the outer continental shelf, supplemented by Canadian pipeline gas and small quantities of liquefied natural gas from foreign countries. In the second half of the 1970 decade we may acquire substantial additional quantities of pipeline or liquefied natural gas from the Prudhoe Bay Area of Alaska.[6] Our policies

6. The President of the United States has "directed the Department of State to continue to examine with Canada measures looking toward a freer exchange of petroleum, natural gas and other energy resources between the two countries." The formulation of a common energy policy with Canada offers promising potential for additional natural gas from Canadian gas reserves as well as Alaskan gas reserves via pipeline across Canada to the vast mid-continent market. Recent exploratory and drilling activities in eastern Canada and offshore in the area of its maritime provinces offer the hope of developing an additional gas supply near the Northeast market.

with respect to the development of supplementary sources should be such that these sources will be ready when the need arises, *but these policies should not permit the development of supplemental sources to interfere with the fullest possible economic utilization of our conventional gas supply or our national security.* Three primary supplemental sources: liquefied natural gas, pipeline quality gas from coal, and oil shale, and nuclear stimulation of tight reservoirs appear to offer the greatest potential.

* * *

In prescribing just and reasonable rates for gas producers, the Federal Power Commission must recognize the realities of the market—including the price of LNG, Canadian imports, and increasing quantities of gas sold intrastate—within a regulatory framework which recognizes the law of supply and demand.

Excerpt from "Coordinating Energy Policy at the Federal Level," Remarks by S. David Freeman, Director, Energy Policy Staff, Office of Science and Technology, Executive Office of the President Before the Federal Bar Association Briefing Conference, Washington, D. C., December 4, 1968.

The situation may well be different looking to the future and indeed the question of relationship between natural gas regulation and the adequacy of gas supply in the future is one of the issues which I believe deserves a careful reappraisal.

Excerpt from "The Growth of the Natural Gas Industry—How Long Will It Continue?", Remarks by S. David Freeman, Director, Energy Policy Staff, Office of Science and Technology, Washington, D. C., to the Eighth Annual Convention, American Public Gas Association, September 17, 1969.

* * *

It's a whole new ballgame for the natural gas industry because in a real sense the industry is at a crossroad. The relatively easy expansions into unserved areas backed by ample volumes of low-cost gas reserves is over.

The new era is one where there are still major new marketing opportunities, but there is a very real question as to whether gas supplies near present prices will be available in sufficient volumes to enable the industry to capture those opportunities.